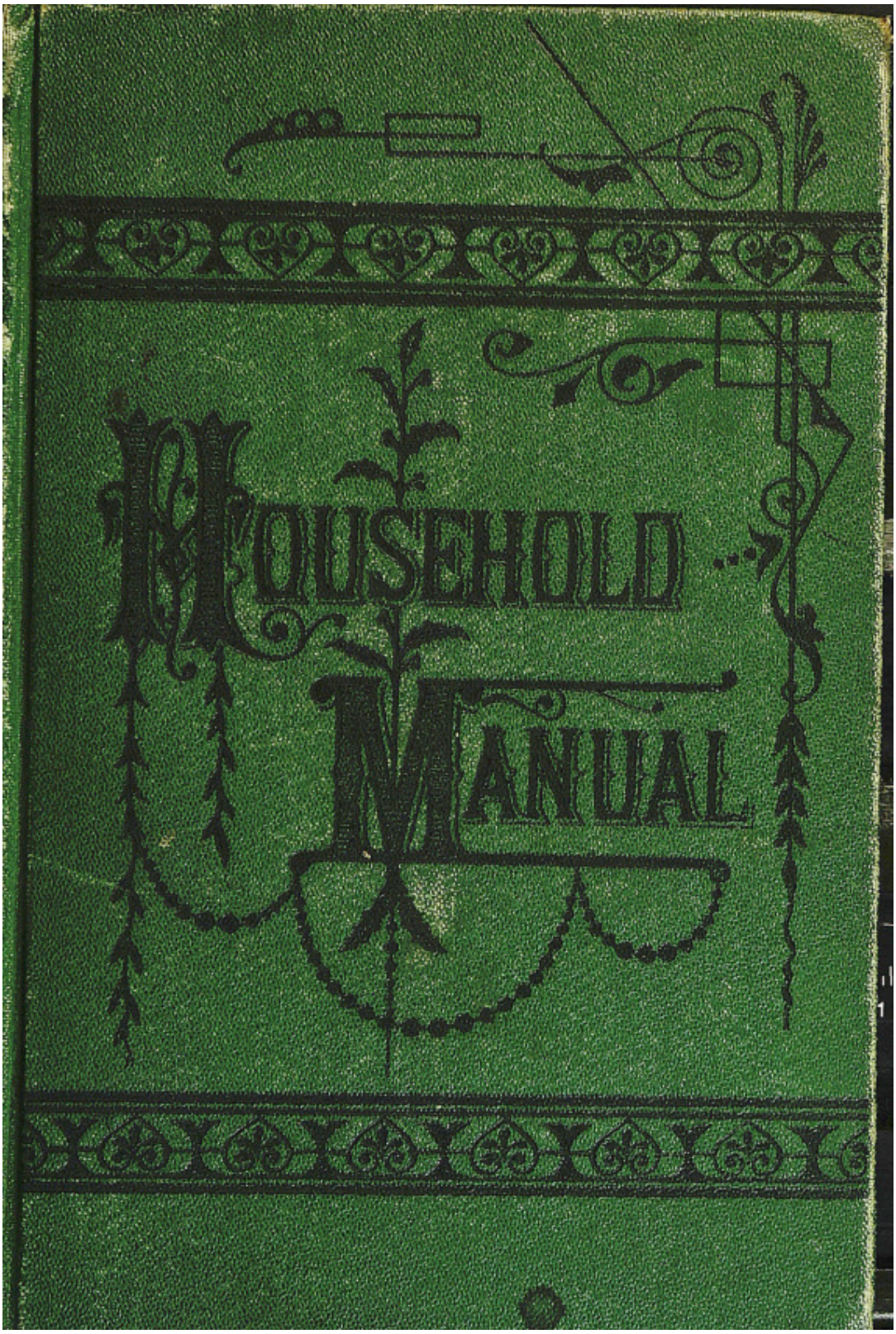

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THE HYGIENIC

COOK BOOK,

COMPRISING,

IN ADDITION TO MANY VALUABLE RECIPES FOR THE PREPARATION OF HEALTHFUL FOOD, BRIEF REMARKS UPON THE NATURE OF FOOD, HOW TO MAKE THE CHANGE OF DIET, TIME FOR MEALS, CANNING FRUIT, &C.

"EAT YE THAT WHICH IS GOOD."

PUBLISHED AT
THE OFFICE OF THE HEALTH REFORMER,
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PREFACE.

Upon few subjects are people so reckless of ultimate consequences as upon that of eating. Whatever pleases the palate is turned into the stomach, no matter what may be its dietetic value. It may be a valuable aliment; but it is quite as likely to be some villainous compound which is not only wholly devoid of nutrient properties, but is eminently qualified to work in the system an incalculable amount of injury. Doubtless the prime cause of this carelessness is the gross ignorance which everywhere prevails relative to the intimate relation between diet and physical and mental health, and also respecting the qualifications essential to constitute any substance a fit article to supply the alimentary wants of the body. This same prodigal expenditure of health and life will doubtless continue until people become intelligent upon these subjects, and until a clear intellect, an untainted breath, and a healthy stomach come to be considered more desirable than the sensuous pleasures which may be experienced by gratification of the demands of a depraved taste and pampered appetite.

The object of this work is to serve as an auxiliary to others which are devoted more especially to the education of the people upon these all-important subjects. To be sure, there are several other works of a similar character extant, and each of them possesses excellent qualities, as well as some notable deficiencies. This work has been prepared with the hope of avoiding the errors,

while embodying as many as possible of the excellencies, of its predecessors.

In the following pages there will be found many more recipes than any one person will be likely to utilize; very probably some of them will be disliked by some persons, while they please others. Possibly each may find something suited to his taste, provided, of course, that his taste is a natural one.

It is to be hoped that all who make use of the book will first carefully peruse the introductory portion, as they may otherwise form incorrect notions of the positions taken. Many of the recipes may at first seem somewhat ultra in character; but when once the appetite has become accustomed to food simply and healthfully prepared, the judgment formed will be quite different, and the former dislike will be found to be due to a perverted taste.

As the name of the book indicates, it is devoted to *hygienic* cookery, and, consequently, no one should be disappointed at not finding directions for the use of those things which are plainly shown to be entirely unhygienic in the introductory portion of the work. The world abounds with books which teach how to use salt, soda, saleratus, butter, etc.; our object is to teach people how to cook without the use of these disease-producing agents.

Many valuable hints have been drawn from various works on cookery, and due credit should be granted to the writings of Mrs. Cox and Miss Colman. Many of the recipes recommended are employed at the Health Reform Institute, located in this place.

PUBLISHERS.

INTRODUCTORY.

Food and Diet.

Since the most excellent culinary preparation cannot convert substances which are absolutely unwholesome and innutritious into good, wholesome food, it is obvious that the selection of *proper material* is a matter of the first importance in all matters pertaining to cookery. A few inquiries, then, respecting the nature of healthful food and some of the articles erroneously considered as such, may not be out of place as an introduction to that portion of this little work which treats more especially of the preparation of food for the table. We will first inquire,

What Is Food?

As relating to the diet of man, food may be defined as being any substance which is susceptible of being taken into the system and there assimilated, or made to take part in the formation of some of the tissues or structures. It is by this process of assimilation that the growth and maintenance of the body is effected. The best food, then, is that by means of which the desired end may be most readily and perfectly attained. Experience shows conclusively, actual experiment having again and again demonstrated the fact, that man can obtain nourishment from such substances only as are the product of the

vegetable kingdom. The plant, through the agency of a mysterious force called vitality, so transforms the various elements of the mineral world as to prepare them for the sustenance of man and the animal kingdom in general. This change is an indispensable one, as all intelligent physiologists agree, and as the facts of every-day life abundantly attest.

Man's Natural Diet.*

While admitting that it is essential that the inorganic elements of the earth and air should undergo a process of organization through the medium of the vegetable kingdom before they can serve as food for man, it is claimed by many that food is still better prepared to meet the wants of the human system after it has undergone the further process of assimilation by the animal kingdom. On this ground it is claimed that flesh is the proper food for man, and that he cannot be deprived of it without suffering material injury thereby. As indicated, however, by his organs of mastication and digestion, the kind of food most suitable to his nature, and the best calculated to supply all the wants of his system, would seem to consist exclusively of fruits and grains.

So great, however, are the capabilities of the human system, in being able to accommodate itself to a wonderful variety of circumstances, it may derive nourishment from a large number of substances, many of which appear to be quite dif-

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*For more complete and conclusive scientific evidences on this subject, see pamphlet entitled Proper Diet for Man, published at this Office. For advertisement, see catalogue on the cover of this work.

ferent in character from those designed by the Creator to be used for this purpose; consequently, we find that man may subsist upon several classes of roots and many other vegetable productions. So, also, life may be sustained by a diet almost exclusively composed of flesh. These facts do not conflict in the least, however, with the statements already made. As previously intimated, they only indicate the wonderful capability of adaptation to circumstances which man possesses. The character of his proper food must be determined from evidences of a more substantial nature than acquired habits and perverted appetences.

Perverted Appetites.

Possessing the power of cultivating the taste to an almost unlimited extent, men have unfortunately acquired many unwholesome and pernicious habits. Their appetites have thus become so depraved that they are enabled to relish articles which are the most obnoxious to a natural, unperverted taste. Among the various substances for which an unnatural taste has thus been acquired, we may mention as the most common, flesh food, butter and all kinds of animal fat, fine flour, spices, pungent roots, as radish, celery, etc., sugar, vinegar, pickles, preserves, tea, coffee, wine and all other stimulants, salt, soda, saleratus, and the various other mineral substances employed in cooking.

Animal Food.

As already remarked, there is the most conclusive evidence that meat is not the most natural

food of man. It is equally well shown that the use of flesh as food is detrimental to longevity, and prejudicial to the attainment of the highest degree of physical, mental, and moral development. More than this, it has many times been made evident to the most strenuous advocates of flesh diet that eating of the flesh of animals is an act attended with no inconsiderable amount of immediate danger to life. Cattle and sheep are well known to be subject to various diseases, just as is man. Hogs are notably liable to disease. How many people suffer all the agonies of death a hundred times from loathsome tape worms which originated in measly pork! And, if possible, how much keener suffering is endured by the poor victims of those horrid creatures, trichinæ, which are to be found in unnumbered multitudes, according to reliable authorities, in one out of every ten of those scrofulous scavengers which supply our cities with ham and sausage.

Fish are also subject to disease, epidemics resembling epizootic diseases often destroying them in vast multitudes. When *not* affected by disease, they are less nutritious than beef; and, upon the whole, they are quite as injurious when used as food as any other kind of flesh.

Notwithstanding the above facts, it cannot be denied that animal food contains the elements of nutrition, although in much smaller proportion than many vegetable productions. This is fully shown in the following table of comparative nutritive values of different articles of food, which is compiled from the most recent scientific works, and chiefly from Dr. Smith's excellent work on "Foods":—

ARTICLES OF FOOD.	Amount of NUTRIMENT in 100 parts.	ARTICLES OF FOOD.	Amount of NUTRIMENT in 100 parts.
Beef,	27.0	Lentils,	77.0
Sheep,	26.4	Potatoes,	26.0
Fowl,	26.3	Turnips,	9.0
Calf,	25.6	Carrots,	17.0
Fish,	22.0	Parsneps,	18.0
Wheat,	86.0	Beets,	16.5
Oats,	88.0	Cabbage,	5.6
Maize,	93.0	Apples,	16.0
Barley,	86.0	Pears,	14.0
Rye,	85.0	Peaches,	15.0
Rice,	87.0	Strawberries,	12.7
Millet,	87.0	Figs,	81.3
Beans,	86.0	Cherries,	23.7
Peas,	85.0	Dates,	76.0

Thus it will be observed that a pound of beef contains less than one-third as much nourishment as a pound of wheat or corn, while other kinds of flesh are still less nutritious. The popular notion that animal food is more nourishing than vegetable is thus shown to be wholly without foundation.

When animal food must be used, as its use is sometimes required as a temporary expedient, it should be carefully selected, so that it may be as free from disease as possible. Wild game is often the most wholesome. It must also be cooked in such a manner as to make it the least objectionable possible. To this end, the flesh should be thoroughly washed, so that the blood retained in it may be removed; fatty portions should be removed, and the flesh should be broiled, rather than fried.

Eggs.

Many vegetarians, so-called, make large use of eggs, apparently overlooking their animal character. They are exciting and stimulating in their nature at the best, and are usually made still worse by improper cooking. When boiled hard, or fried in grease and eaten with pepper and salt, they are very indigestible. For this reason the use of eggs in cakes and custards is very objectionable. The less they are used the better.

Milk.

Although somewhat less objectionable than flesh, milk is animal food, and is open to most of the objections urged against the use of meat. It is doubtless the best food for young animals, as each class of warm-blooded animals is provided with this kind of food, which is just adapted to the alimentary wants of the animal for which it is designed. In accordance with this principle, an error is made when we attempt to sustain one class or species of animals on food especially adapted to another. Cows' milk is excellent for calves, but cannot be so well adapted to the use of man, because the requirements of his system are of a different character from those of a calf. Even cows' milk is much better for the use of children than for adults, as certain changes take place in the digestive organs during the process of growth which render milk and all kinds of fluid nutriment objectionable, as they cease to be suited to the condition of the individual to be nourished.

Milk is quite liable to be freighted with the products of disease. Many cases have been reported in which there was the best of evidence

that typhoid fever was communicated through the medium of milk. In some instances the germs of disease were introduced into the milk through water which was fraudulently added to it, or which was used in cleansing the vessels containing it. In other cases, there were good grounds for believing that the typhoid poison was introduced into the circulation of the animals with their food, and thence transmitted to the milk. It is thought by some medical authorities of eminence that tubercular consumption, which is a very common disease in cows, is communicable to human beings through the medium of the milk. It is also a well established fact that when the period of lactation in animals is unnaturally prolonged, the lacteal secretion becomes largely of the character of an excretory product. If used at all, it should be with great moderation. The less the better for adults.

Cheese.

Old cheese is one of the most injurious of dietetic abominations. The notion that it aids digestion is a monstrous fallacy. It is itself very indigestible, and it impairs and retards the digestion of other food. In the process of ripening, or maturing, the cheese undergoes putrefactive changes which give rise to noxious acids and gases, to which the pungent taste of old cheese is due. Only when new is it at all fit to be eaten; and then much risk is often incurred, as various poisons are frequently introduced as coloring material. Pot-cheese is less objectionable, when properly made, than old cheese made at the factories; yet this is by no means an entirely wholesome article of food.

Butter.

Butter is not materially different from other animal fats and oils, in its effects upon the system, at least; neither is its composition much different from tallow, lard, etc. Indeed, a very large proportion of the butter now used in large cities is manufactured directly from suet. Many who have partially adopted the hygienic mode of living have made a very grave mistake in their manner of using butter. Learning of its injurious character, they have ceased to place it upon the table in its solid form, to be used, as formerly, with bread, etc.; but they continue to put butter in their food as seasoning, and, possibly, increase the quantity a little to supply the deficiency felt from banishing it from the table as a separate dish. They doubtless go upon the principle that if the butter is only out of sight it can do no harm. The truth is that this is the very worst possible way of using butter or any other kind of fat. When cooked with the food, it thoroughly permeates the whole mass, and renders it next to impossible of digestion. When simply spread upon bread, it is much more easily disposed of. But there is no necessity whatever for the use of any kind of animal fat, any more than there is for the use of flesh. The various kinds of nuts, and the rich grains and seeds, as corn, beans, and peas, are wholly adequate to supply all that the system demands in the line of oil. When we remember, also, that in animals a large amount of fat is invariably the result of disease, this becomes a very undesirable article of food.

Fine Flour.

The invention of the process of "bolting" flour was a most unfortunate occurrence for humanity. It has been the direct cause of an incalculable amount of injury to health, fine flour being a most fruitful source of disease. It has also been productive of enormous waste, independent of the worse than useless labor bestowed upon the process itself; for by removing from the kernel of wheat the outer layers, called bran, coarse and fine middlings, etc., the grain is deprived of its most nutrient portions, which are fed to hogs or other domestic animals who thrive upon the best portion of the wheat while man contents himself with the impoverished residue.

Fine flour should never be used only in exceptional cases. It is barely possible that some invalids who have morbidly sensitive stomachs may find the coarsest portion of graham flour somewhat irritating. In such cases the coarse bran can be removed with a sieve, or a quantity of fine flour may sometimes be mixed with the graham for a time, until the system becomes accustomed to its use.

Spices.

All pungent, acrid substances should be wholly discarded by hygienists. They vitiate and destroy the delicacy of the sense of taste, and are active and potent agents in producing dyspepsia and all the attendant evils of that hydra-headed malady. Pepper, nutmeg, cinnamon, and the remainder of the list of savory, though pernicious, condiments, do not add anything of value to the food, but obscure its natural flavors, and destroy the relish for simple, unstimulating foods.

Salt, Soda, and Other Minerals.

Salt is said to be an indispensable article of *food* by many eminent physiologists. Nothing can be more untrue than this statement, notwithstanding the eminent character of its champions as men of learning and integrity. They doubtless have what appears to them to be evidence of the truth of their position. However this may be, the evidence that salt is an injurious article of diet in *any* quantities, either large or small, is of the most conclusive character. It contains no element essential to nutrition; in fact, it cannot be used by the system in any useful manner whatever. When taken into the body, it is hurried out by the most accessible channel; hence its stimulating character; for stimulation is simply the result of the defensive action of the system. It is inorganic in its nature, and, consequently, cannot be assimilated by the organs of nutrition, but is rejected like any other poison. The experience of hundreds—we may even say thousands—of individuals demonstrates, in spite of all the theories about hydrochloric acid, etc., that salt is not only useless, but harmful as an article of diet. It is an irritant, a caustic, an antiseptic; and it produces a feverish condition of the system, irritates the digestive organs, and, in any considerable quantity, greatly retards the digestion of the food.

All that has been said with reference to salt will apply with still greater force to soda, saleratus, cream tartar, and the other minerals with which modern cookery contrives to spoil our food and ruin our health. All are worse than useless. Discard them at once, if possible; if not, be sure

to cultivate a dislike for them as rapidly as may be, by gradually diminishing the quantity used.

Sugar.

Under this head, we shall include all the various forms of saccharine matter—sugar, sirup, molasses, maple sugar, honey, etc. It has been claimed by some that sugar was an inorganic substance like sand, salt, powdered glass, etc. This statement will not bear the scrutiny of science, however, and could not be honestly made by a person who understood all the scientific and chemical facts bearing on the subject. Sugar is, properly speaking, neither an inorganic nor an organized substance. It is an intermediate substance. It is one of those curious products which is formed in the laboratory of nature in the process of converting dead, inert, inorganic matter into living, active, organized structure. In other words, it is a partially organized substance. Its principal use in the economy of nature seems to be to render palatable, food which would otherwise be tasteless or unpleasant. For this purpose, it is, with rare exceptions, provided in just the right form and proportions in the substances designed for the dietetic use of man. In some articles, as very sour fruits, it seems to be deficient; but the want is supplied by a superabundance in such sweet fruits as dates, figs, and raisins.

The sweet element of these fruits is doubtless essentially the same as what is commonly termed sugar; at least, it becomes so by the processes of drying and cooking to which it is usually subjected. The question at once arises, Why may we not use sugar, then, as freely as we may use sweet fruit? The objections to the use of sugar are two:—

1. It is exceedingly liable to adulteration with very poisonous substances in the process of manufacture; sulphuric acid, nitric acid or aqua fortis, and bi-acetate of lead—a potent cause of lead paralysis—are frequently employed for various purposes.

2. On account of its condensed form, it is almost certain to be used in excess, when it becomes a very effective cause of dyspepsia, liver complaint, and a host of evils. With sweet fruits, this is much less liable to occur, although it is not at all impossible. On this account, sweet fruits are preferable to pure sugar, and hence we have usually recommended their use in place of the sugar of commerce.

When sweet fruits cannot be obtained, or when their use may be very objectionable for other reasons, a *very moderate* quantity of sugar may be used. Always buy the best white sugar. Brown sugar is seldom fit to use. Its dark color is due to the dirt it contains; and, worse than that, it is often filled with minute animals which are the cause of a disease known as grocer's itch. Maple sugar is no better than good coffee sugar. The sirups are hardly safe to use at all, as they are so largely adulterated. About one-half of that in market is spurious, being manufactured from cotton, old rags, sawdust, refuse starch, and sulphuric acid. About the only justifiable use of sugar is for rendering more palatable sour fruits.

Be careful to avoid excess in the use of sweetening; and, best of all, acquire, as soon as possible, a simple taste which will relish food best when nearest its natural condition, and without the addition of any condiment.

Vinegar, Pickles, and Preserves.

It would seem that nothing need be said to convince any candid, observing person that these articles are wholly unfit for food, as his own sensations must often have hinted to him their indigestible character. Vinegar is really more injurious than alcohol. This is not strange, since it is one more step advanced in the process of decomposition which ultimately converts sugar into carbonic acid and water. Vinegar is always formed by the fermentation of alcohol by means of yeast or something equivalent. Pickles are wholly intolerable, and are almost devoid of nourishment. Preserves are about equal with them in this respect. Converting good, wholesome vegetables and fruits into pickles and preserves is a very wasteful practice, to say nothing of its detrimental influence upon the health, which is simply enormous. They should never be eaten under any ordinary circumstances.

Tea and Coffee.

Although these cannot be called food in any sense, they are so often taken with the food that we will consider them here. The objections to the use of tea, coffee, cocoa, and chocolate, are the three following:—

1. They are stimulating. This implies that they contain elements which are recognized by the system as poisons, and are treated as such, being turned out of the body as quickly as possible after being introduced. Chemical analysis reveals the fact that each of the articles mentioned contains a poison which is very fatal to animal life when taken in any but the most mi-

nute quantities. Tea, coffee, chocolate, and cocoa differ somewhat in their poisonous qualities, but the difference is principally in degree, not in kind, since the element which gives to them their peculiar properties is essentially the same in each.

2. All drinks are objectionable when taken with the food, as they render digestion difficult, and impose a severe task upon the digestive organs before the work of digestion proper can begin, since all superabundant liquid must be absorbed from the food before the gastric juice can perform its proper function. Drinking with meals in a very pernicious habit, and makes thousands of dyspeptics. It encourages rapid eating, and, consequently, insufficient mastication and defective insalivation.

3. Tea and coffee are taken hot; and many people become so accustomed to the unnatural temperature that they are able to take into their mouths without pain that which would nearly scald their hands. Although no pain is felt, the injury is nevertheless accomplished. The fine sensibility of the nerves of taste is destroyed, and the whole mucous membrane of the mouth, throat, and stomach, becomes congested, debilitated, and subject to almost any disturbing influence.

Many people who call themselves hygienists use burned bran and molasses, burned bread, rye, barley, acorns, etc., in place of ordinary coffee; some use hot water only. Although the practice is not as objectionable as that of using worse articles, it is open to the full force of the last two objections, and when the roasting is carried beyond the point of simply browning the article

employed, be it bread, bran, or rye, it becomes somewhat poisonous and injurious. If it is thought that something warm must be taken to "warm up the stomach," a cup of warm water may be taken ten or fifteen minutes before the meal with no injury, as the fluid will then be absorbed before the food is taken.

Wine.

Without here entering into a discussion of the question which involves the medicinal use of wine, we can unhesitatingly state that its habitual use as a beverage is a habit worthy of the most unqualified condemnation. It is productive of an untold amount of suffering, sin, and crime. Nor is moderate drinking less deserving of censure than absolute drunkenness. Moderate drinkers are more dangerous enemies to temperance than drunkards. Stimulation means poisoning! and it is the gratification of the desire for artificial stimulus that constitutes the crime of using alcoholic liquors rather than the simple act of drinking wine, brandy, rum, whisky, or beer. All the virtue which wine is supposed to possess is due to the *alcohol which it contains*. Hence the only real difference between wine and rum, brandy, whisky, or other liquor is in the strength, and consequently the use of wine is open to the same objection as the use of those other liquors.

Time for Meals.

But two meals per day are far preferable to more than that number. The stomach needs rest as well as the other organs of the body. Meals should never be eaten with less than five hours' intermission, by adults. With small children, this rule may be varied somewhat ac-

cording to the age of the child. Probably the best hours for meals, considered from a physiological standpoint, are 8 A. M. and 2½ P. M. Those who find these hours inconvenient may take breakfast at 7 A. M. and dinner at 1½ P. M. Some cannot make these hours convenient, and such may breakfast at 6½ A. M. and dine at 12 M. without suffering particular inconvenience from not taking the third meal, after having become accustomed to the change. For almost all persons, two meals are vastly better than three; but if the third meal is taken, it should be very light, and should not be eaten later than 5 P. M.

Change of Diet.

Perhaps the greatest obstacle in the way of a reform in diet is the difficulty which people find in breaking up old habits and establishing new ones. When this crisis is once safely passed, no further difficulty is experienced; and what was at first a hardship, is transformed into a pleasure such as was never before experienced. This is the uniform testimony of all who have persevered until new tastes and appetites were fully formed. But how to get over the unpleasant period during which changes are being made, is the problem. By observing the following suggestions, little difficulty will be experienced:—

1. *Make the change gradually.* Unless you can devote your time to the matter, suspending, in a measure, at least, your usual avocations, do not attempt to abandon everything not purely hygienic at once. When the change is made thus suddenly, the individual making it suffers more or less derangement of his system. He feels languid, weak, perhaps somewhat ill-tempered, and

may suffer somewhat from indigestion. These unpleasant sensations discourage him and weaken his will power, so that he is quite likely to abandon the attempt at reform; and it may be that he will lose confidence in the whole system. A gradual change will obviate all of these difficulties.

2. *Be sure to make constant progress.* The strongest argument which extreme and ultra hygienists are able to urge against this method of effecting a change from bad dietetic habits to good ones is the fact that many persons who make the attempt in this manner forget the importance of constant, prolonged, and persevering efforts, and allow themselves to rest contented after taking only the initiatory steps toward a reformation.

3. *Use common sense.* It is very frequently the case that people who attempt a reform in diet only exchange one bad habit for another; and sometimes, indeed, the second habit is far more injurious than the first. Exchanging light, sweet, fine-flour bread for heavy, perhaps sour, graham bread, is not reformation. Substituting large quantities of sugar, sirup, or molasses for meat is a terrible retrograde, rather than advancement. Banishing butter from the table, and then saturating the potatoes, gems, pie crust, and griddle cakes with suet, is no improvement! How many would-be health reformers have made themseves dyspeptics by attempting to reform in so unphilosophical, not to say absurd and ridiculous, a way!

4. *Do not attempt to live on an impoverished diet.* In other words, do not exclude from your dietary meat, butter, eggs, milk, sugar, and salt,

and then attempt to live on the residue of your former bill of fare. As each of the injurious articles mentioned is abandoned, supply its place with some new, palatable, and tasty hygienic dish. An impoverished diet is not one which excludes meat, butter, sugar, salt, spices, and other unhygienic articles; it is one which is lacking in the elements of nutrition, or which is not adapted to the particular conditions of the system. That which would be an impoverished diet for one might amply supply all the alimentary wants of another. Individual temperaments vary, and circumstances vary equally as much, so that set rules cannot be laid down which will be equally well adapted to all cases. Each individual must apply general principles to his own special case.

In commencing the change, discard the worst articles of diet first. Spices, vinegar, pickles, preserves, mustard, peppersauce, old cheese, and similar articles, may be discontinued at once and forever. Pork and all its products may be abandoned equally as promptly. Exchange fine flour for graham bread. Next attack the tea and coffee habit, reducing the quantity for a few weeks at first, if necessary, but being sure to rout the enemy. Curtail the butter and salt, and use only a moderate quantity of meat. By degrees these may be relinquished. Nuts may be freely used instead of butter. Sweet fruits may also be largely substituted for sugar. In the course of a few months, a person may thus easily become a thorough hygienist if he will constantly keep in view the ideal standard of a true reformer, which demands ultimate freedom from every habit which is the result of perverted taste, or departure of any kind from the strict observance of the

laws of nature. One important element which is usually necessary to success is a thorough appreciation of the fact that so intimate is the relation between moral and physical laws that the latter cannot be knowingly disregarded without doing violence to the former. "It is a sin to be sick;" and every law relating to health should be scrupulously and conscientiously observed.

It is quite possible that there may be found aged persons who have so long been accustomed to the use of flesh that an entire abstinence from that kind of food might be attended with more injury to them than the continuance of its moderate use. But this argues nothing in favor of animal food as the best diet for man. Young people and persons of middle age may make the change with impunity; and it is very doubtful if a return to the use of animal food can in such cases ever become necessary after the appetite for it has been once fully overcome.

COOKERY

The Art of Cooking.

Good cookery may justly be classed among the fine arts; but in regard to that which is usually called good cookery, which consists in so compounding lard, butter, sugar, saleratus, cream, and spices, with the various fruits, grains, and vegetables as to not only completely conceal or destroy the natural and proper flavors of those articles, but to make them next to impossible of digestion and fit for nothing but the compost heap—such cookery might much more properly be called the black art. Indeed, if we except drug medication, we shall be perfectly safe in saying that modern cookery is the greatest bane of civilization at the present time. Men and women are subject to few diseases whose origin may not be traced to the kitchen. Closely following diseased physical natures come mental and moral inefficiency originating in the same prolific cause. This being the case, the importance of a thorough understanding of the principles of nutrition, and of the nature of alimentary substances by those who attend to this branch of the domestic economy, becomes very apparent. The position of cook, instead of being considered of a menial nature, should be looked upon as one of great importance and responsibility, and one which should be intrusted to none but intelligent and trustworthy persons. Especially is this true of hygienic cookery. Many have been discouraged and disheartened in attempting to make a reformation

in their dietetic habits by bad cooking alone. In the old methods of cooking it made little difference if the bread did sour in making; alum and saleratus would make it all right. If the meat became tainted by long standing, pungent and savory spices and condiments would effectually conceal the putrescent taste and odor. But in hygienic cookery, since nature's seasonings are the only ones allowed, the greatest care is necessary to preserve the delicate natural flavors of the articles used for food. In this direction there is a broad field open for skilful experiment.

One of the chief requisites for a good cook is perseverance. If the first attempt is not fully successful, do not denounce the recipe a failure, and the system a humbug, but try again and again until success, which is certain, is secured. Make the art of cookery a study, and utilize all your scientific knowledge, as well as your natural ingenuity, in your efforts to provide healthful and palatable food for those depending on you for those essentials of life.

BREAD.

This article of food, in various forms, constitutes a very large proportion of the diet of nearly all civilized nations. Yet it is a fact that a really good specimen of bread is seldom found, at least in this country. Very few cooks know how to make good bread, notwithstanding their acknowledged dexterity in compounding various mixtures to which they attach the name of that article. What, then, are the qualifications essential to

Perfect Bread?

1. It must contain as many as possible of the elements necessary to sustain life.

2. It must be light and porous, so that it may be thoroughly and easily insalivated and digested.

3. It must be palatable.

4. It must be of such consistency as to require sufficient mastication to enable it to become thoroughly permeated by the saliva.

5. It must not contain any ingredient which will be in any way injurious to the system if taken into it.

6. The material of which it is made must be preserved uninjured by the process of making.

Unwholesome Bread.

Let us briefly consider, in the light of the above principles, the real character of the bread which constitutes a staple article in the diet of the great majority of Americans, if we except the red-skinned natives of the West.

1. In ordinary bread, made from bolted flour, we have just the opposite of what is required for perfect bread, viz., "*as many as possible* of the elements necessary to sustain life." Instead, we have almost nothing but starch, which, alone, is no more competent to sustain the life of animals than pure water. It has been proved by actual experiment that dogs, when fed exclusively upon starch, or super-fine flour, will die almost as soon as when left wholly without food.

2. Although it is claimed by those who are prejudiced in favor of "raised" bread that in respect to the second requirement it has a decided preference over "unleavened" bread, which is

usually believed to be synonymous with heavy bread, yet if we may believe the testimony of most authors of popular cook books, as well as that of our own experience, it is not a thing at all uncommon for the good housewife, in the midst of her cares and burdens, to neglect her "sponge," which is undergoing the process of "raising," until putrefaction has so far advanced that heavy, sour, "soggy" bread is the result.

3. To be well assimilated, bread, as well as all other food, must be relished. To perfectly healthy tastes, the bread which is usually presented on our tables is far from palatable. It will bear no comparison with the sweetness and natural flavor of well-made unleavened bread. All are ready to grant the unrivalled superiority of the famous "hoe-cake," formerly so common in the South, and yet its sole ingredients were corn-meal and water.

4. The eating of too large a proportion of soft food, which requires no mastication to allow it to be swallowed, is very injurious to the teeth. Like all other organs, they require exercise to preserve their integrity; hence, a large portion of the bread eaten should be in the form of crisps, crackers, or cracknels. Any one whose teeth are not in total ruins will find himself amply repaid for the trouble which he may experience in accustoming himself to the use of hard food. There is no better remedy for sore teeth and tender gums than eating food which requires vigorous and thorough mastication.

5. Not only is ordinary leavened bread, whether domestic or made at the baker's, almost totally deficient in some of the most important nutrient elements found in the grain and in unbolted flour,

but it contains many foreign elements which are decidedly injurious in their nature. These may be considered under the following heads:—

a. Elements which are used for the purpose of "raising." In ordinary home-made bread, no "raising" material is added to the dough. In this case, the putrefactive process, for such it is, is commenced by the introduction into the batter, from the air, of certain microscopic germs which are always the chief agents in originating the process of decay, and which are always present in putrefying matter. Hop yeast, besides containing the noxious elements just mentioned, contains an alkaloid which is peculiar to the hop plant, and which is a powerful narcotic poison when used in a concentrated form. It is due to the action of this poison that a hop poultice is often used to relieve local pain. Brewer's or baker's yeast is also a vile product of the process of putrefaction. It is simply the foul matter which rises to the surface of the vat as scum, or sinks to the bottom as sediment, in the fermentation of beer. Bad as are the articles already mentioned, there is a class still more injurious; viz., the soda, saleratus, cream of tartar, and the various compounds known as baking powders. They are all extremely pernicious, and have wrought much mischief upon human stomachs. It is useless to argue that a harmless salt is produced by the combination of these elements, for the salt itself is a caustic, irritating chemical, and a poison.

b. Changes which are the results of fermentation. The first, and that upon which the value of the process depends, is the production of carbonic acid. This well-known poison permeates the

whole loaf. The same is also the case when chemicals are used. Again, it has been proven by chemical analysis that a considerable portion of alcohol is formed in the "raising" of fermented bread, and that so much of this is retained in the bread that a person would take as much alcohol into his system by eating a few loaves of fermented bread, as by drinking a glass of beer. Lastly, if the process of fermentation is allowed to progress a little too long, true putrefaction begins, and acetic, butyric, and other unwholesome acids are formed, which often give to bread a very unpleasant taste and odor.

c. In addition to all these unwholesome elements, to which ordinary domestic bread is liable, baker's bread contains numerous other harmful ingredients, which are added either for the purpose of hiding the poor quality of his materials, increasing the weight of his loaves, or otherwise increasing his gains. Conspicuous in this list are blue vitriol, ammonia or sal ammoniac, alum, chalk, and magnesia. Sundry other chemicals, besides various filthy compounds sold as fruit essences, are also used in cakes and pies.

6. The production of carbonic acid and alcohol is at the expense of both starch and sugar, two of the chief nutrient elements of the grain, and also of the peculiarly grateful aroma, which gives to each species of grain its characteristic flavor. This is one of the reasons why fermented bread can bear no comparison in sweetness with unleavened. The various chemicals which are employed in "raising" bread, through chemical action upon the ingredient of the grain, not only destroy some of them entirely, converting them

into harmful agents, but they render the whole less palatable and less nourishing.

Directions for Making Wholesome Bread.

Incredible as it may seem to one who has never seen the matter demonstrated, it is nevertheless a fact that bread possessing all the qualities of lightness and porosity may be produced without the introduction of any such deleterious substances as yeast, soda, saleratus, or cream of tartar. Neither will it be found necessary to allow the batter to stand until the process of decay is spontaneously induced. *Atmospheric air* and *soft water* are the only materials necessary to render bread as light as can be desired. These harmless agents are incorporated into the meal by proper mixing, and when heat is applied, the air expands, and the water is converted into steam, so that the bread is effectually raised without undergoing the process of decay, or being contaminated by any villainous chemical compounds.

Selection of Materials.—One of the most important requisites is the selection of the proper kind of material. Good bread cannot be produced from poor flour by the most expert manipulations of a professional cook. Especially is good material important in making hygienic bread, since its excellence depends so largely upon the natural properties of the grain, and deficiencies and unpleasant properties cannot be obscured by the addition of foreign materials so frequently employed in the old methods of bread-making. First-class flour must possess each of the following qualities:—

1. It must be prepared from grain which has been fully matured, and which has not suffered

deterioration from rust or mold, or from being exposed to moisture and heat.

2. The grain should be thoroughly purified from all foreign substances before grinding.

3. The flour must not be deprived of any of the nutritious elements of the grain by the process of "bolting" which is so generally resorted to, and which results in ruining the teeth and constitutions of thousands of persons every year, and involves the reckless waste of by far the most nutritious portions of our nutrient grains. In other words, fine flour should never be used. Wheat meal or graham flour, corn meal, oatmeal, barley meal, and rye meal can now be readily obtained in nearly all localities; and they should always be used instead of bolted flour.

4. The meal should be properly ground—neither too coarse nor too fine. If too coarse, the hulls of the grain will be irritating to the delicate digestive organs, especially to those whose stomachs are rendered morbidly sensitive by disease. If too fine, the bread made from it will be less likely to be as light as desirable.

5. Lastly, when water is used for making the batter, pure soft water only should be selected. Hard water toughens the dough and greatly diminishes the tenderness of the bread. No salt should ever be added to the water. Neither should any chemical be added for the purpose of "softening" the water, as the evil will only be increased.

DIRECTIONS FOR MAKING.—After having selected the proper materials, much care and even dexterity is needed to produce good bread. The following general directions must be carefully attended to:—

1. Care must be exercised to select just the right proportion of the ingredients for the particular article to be produced. Whenever convenient, accurate measurement should be resorted to. But it must be borne in mind that different kinds of grain possess different absorbing qualities, and different qualities or grades of the same kind of grain will also vary in this respect. Hence the amount of water or other fluid to be incorporated with a certain quantity of flour must be subject to certain variations. But a little careful experimenting will readily fix the proper amount in all cases.

2. Since the lightness of unleavened bread depends so largely upon the expansion of atmospheric air, it is, evidently, quite important that care should be taken to incorporate into the batter as much of this harmless "raising" agent as possible.

3. Much also depends upon the condition of the oven, which must receive a due share of attention. The terms *quick* oven and *slow* oven are of frequent occurrence in the technology of cookery, but are often quite loosely employed. A *quick* oven is one which is so hot that the hand can be held in it but a very few seconds. An oven in which the hand can be held for a full half minute is termed a *slow* oven. These definitions are obviously not quite satisfactory, but perhaps they are as precise as can well be given without resorting to the thermometer which is not always at hand.

4. All utensils employed must of course be kept scrupulously clean in order to preserve unimpaired the natural sweetness of the grain.

5. Do not be discouraged even after repeated

failures. Still persevere, and final success is certain. The making of good, wholesome, hygienic bread is the very highest triumph of the culinary art; and when accomplished, one of the most efficient means of restoring and preserving health has been acquired. Bad bread is probably responsible for more despondent feelings, more ill-tempers, more crimes, perhaps more suicides, than any other article of food. And good bread is equally efficient in promoting health, cheerfulness, amiability, and even piety; for we fully credit the statement that there is "religion in a loaf of bread." Is not such a triumph, then, worth working for?

6. If it is desired that the bread should be tender and moist, it should be made with hot water. If dryness and brittleness are the qualities desired, cold water should be used, and the colder the better.

It is important that the meal should always be perfectly fresh, as all kinds of flour deteriorate very rapidly after grinding, especially when exposed to warmth and moisture. The best and cleanest grain should be selected.

Soft Biscuit, or Gems.

We give this first as being the simplest and most quickly made of any form of bread. It is, consequently, a very convenient article for breakfast. Although but a short time has elapsed since this kind of bread was introduced into cookery, it has become a very general favorite among all classes, even those who are not hygienists. It is to be lamented, however, that too often the delicate natural flavor and sweetness of

the grain is destroyed by the caustic action of such questionable articles as soda, saleratus, baking powders, etc. Nothing but pure water and meal are needed in its composition.

Into one part of cold soft water stir two parts of rather coarsely ground graham flour made from the best white wheat. Sift slowly in with one hand while stirring with the other, thus endeavoring to get in as much air as possible. If the flour is made from red wheat, a little more than two parts of meal will be required. The batter should always be thick enough so that it will not settle flat. If it is too thin, the biscuit will be likely to be flat and blistered; if too thick, they will be tough and heavy. In the first case, the batter is not of sufficient firmness to retain the air, and in the second, it is too stiff and unyielding. Beating the batter after mixing does not materially increase its lightness. No salt should be used.

BAKING.—The loaves must be small, like biscuit. Cast-iron gem pans or patty pans are most convenient for baking in. The pans should be heated very hot before dropping the batter in. A very hot oven is required, and the gems should be baked on the top first, to prevent the escape of the air and steam. The heat should not be sufficient to brown them in less than fifteen minutes, and they are better to bake twenty-five or thirty minutes; a longer time toughens the crust.

In order to prevent sticking, many people are in the habit of placing in the pans so large an amount of grease that the biscuits are rather fried than baked. This is a most pernicious practice, and is wholly useless. To prevent sticking,

smear the baking iron with sweet oil or fresh butter. Heat it thoroughly, and then carefully wipe away as much as possible of the oil. This will leave the iron smooth; and if it is carefully wiped after each baking, and then laid away in a dry place without washing, no difficulty will be experienced from sticking, and it will require oiling only at long intervals. The pan must always be very hot when the batter is placed in it.

By combining other grains in various proportions, a great many different kinds of gems may be made. A mixture of equal parts of graham flour and corn meal makes a very nice article. Boiled rice may also be used. Take one part boiled rice to three parts of water, and stir in graham flour sufficient to make a batter a little thicker than when the meal is used alone. Hominy and pearl-barley may be used in the same manner. This will be found a very convenient method of utilizing portions of food which might otherwise be wasted.

Corn-Meal Gems.

Upon one part of fine corn-meal, pour two parts of boiling water, and mix well. Bake in gem pans, in a quick oven. This makes the simplest and sweetest corn cake that can be made.

A favorite method with some is to allow the batter to stand over night after mixing; but it is liable to injury from souring.

ANOTHER METHOD.—Pour boiling water upon a pint of sweet, evenly-ground corn meal, stirring briskly until all is scalded. Then thin the batter with cold water, and add half a pint of fine or graham flour. Bake until slightly brown. Hot stewed pumpkin may be used instead of hot water.

Oatmeal Gems.

Make a thin batter of nice oatmeal and cold water. Let it stand over night, and in the morning add a little graham flour if too thin. Bake as wheat-meal gems.

Rye-Meal Gems.

Use rye meal instead of wheat meal, and mix and bake as directed for soft biscuit. The batter should be a little thicker.

Rye-and-Indian Gems.

Take one pint corn meal and twice as much rye meal. Scald the corn meal with boiling water, stirring it well. Then add the rye meal with sufficient warm (not hot) water to make a thick batter. Beat, or stir with a spoon, a few minutes, and bake in a moderate oven.

Graham-and-Indian Gems.

Scald one-half pint of corn meal. Add one-half pint cold water. Beat out all the lumps. Add another half pint of cold water, and sift and stir in about a quart of graham flour. Bake on the top for forty or fifty minutes. If the crust is too hard, cover in a dish for a few minutes after baking.

Green-Corn Gems.

Take one part grated green corn and two parts of water. Thicken with graham flour, a little thicker than for soft biscuit. This makes very tender and palatable gems.

Drop Cake.

Mix wheat or rye meal with cold water to a stiff dough, stirring until well mixed, and drop

with a spoon upon a hot baking tin in a hot oven. Bake until well cooked and brown. Eat while warm.

Johnny Cake.

Prepare the batter as for corn-meal gems, and bake in a common baking tin. This is known in the South and West as "hoe-cake," "corn-dodger," etc. In the days of open ranges and fireplaces, the batter was commonly baked upon a board before the fire.

Mixed Johnny Cake.

Take equal parts of wheat meal and coarse corn meal. Scald the latter, and add the wheat meal with only sufficient water to leave the batter stiff enough to need smoothing with a spoon. Make one or two inches thick, and bake an hour. Let it stand covered a few minutes after baking.

Snow Cake.

Take one part of corn meal and two parts dry snow. If the snow is moist, use less. Mix well in a cold room. Bake in gem pans, filling the pans rounding full. Place quickly in a very hot oven. If the cakes are raw, or too dry, more snow was required. If they are heavy, too much snow was used.

Oatmeal Breakfast Cake.

Saturate oatmeal of medium fineness with water. Pour the batter into a shallow baking dish, and shake down level. It should be wet enough so that when this is done a little water will stand on the top. Bake twenty minutes in a quick oven. It may also be baked in fifteen minutes on the top of the stove in a covered dish.

Rice Cake.

Thin well-boiled rice, while hot, with water. After cooling, work in wheat meal until a pretty stiff dough is formed. Bake in any desired form.

Pudding Biscuit.

Any kind of cold mush may be made into excellent biscuit by working into it graham flour, and kneading well. Bake with moderate heat.

Griddle Cakes.

No. 1. Make a thin batter by slowly stirring buckwheat flour into cold water. Bake upon a smooth iron or soapstone griddle. Rub the griddle well as soon as each cake is removed, and it will require no greasing. Eat as soon as baked.

No. 2. A mixture of corn meal and graham flour makes very excellent griddle cakes. The griddle may be placed in the oven, and the cakes baked crisp, if desired.

No. 3. Very nice cakes can also be made by mixing graham flour with grated sweet corn to a proper consistency.

Hard Biscuit.

Pour upon the flour to be used, boiling water enough to wet it. About one part water to two of flour is the quantity usually required. Stir with a spoon just enough to mix it well without much working. Then roll or press it with the hand upon a bread board, with plenty of flour, to the thickness of one-half or three-fourths of an inch. Cut into convenient shape, and bake in a moderate oven for twenty minutes. They are very tender if not baked too long.

Rolls.

Make a stiff batter with cold water, work in as much flour as will knead well, and then knead for twenty minutes or half an hour. Make into rolls one-half inch to two inches in thickness, and bake in a hot oven on a grate or baking pan dusted with flour, laying them a little distance apart. Excellent rolls may be made by kneading flour into cold graham, corn-meal, or oatmeal pudding.

Scalded Rolls.

These are made like the preceding with the exception that the batter is first made with hot, instead of cold, water. They do not require so much heat as the soft biscuit.

Corn Rolls.

Take corn meal, rather fine, scald with boiling water, stirring well. Add a little cold water and beat out all lumps; then add more water and stir in graham flour sufficient to make a batter somewhat thicker than for soft biscuit. Bake in rolls.

LOAF BREAD.

Graham Bread.

Make a stiff dough with rather coarse wheat meal. Knead a long time, and bake in quart dishes.

Potato Bread.

Boil and thoroughly mash mealy potatoes. Add the desired quantity of graham flour, and mix with water, making a batter sufficiently

thick to knead on the board. Bake in any form preferred. May use equal quantities of potatoes and meal, or two parts of the meal to one of potatoes.

Sweet Potato Bread.

Steam or boil without peeling, a sufficient number of sweet potatoes. Peel and mash fine. Add a sufficient quantity of graham flour to give the desired consistency. Mix and knead quickly, and bake in small loaves or rolls.

Cocoanut Bread.

To each quart of graham flour add three tablespoonfuls of grated cocoanut. Mix either with water or the milk of the nut, knead until the dough is spongy, and bake as directed for other bread.

Snow Bread.

Mix one part of corn meal with two parts of dry snow, stirring well. Pour into a pan, rounding in the middle to a thickness of about two inches. Bake in a *hot* oven twenty or thirty minutes. When properly made, this bread is very light and sweet.

Oatmeal Bread.

1. Stir oatmeal slowly into boiling water, making quite a thick batter. Pour into a deep dish and bake in a hot oven till brown.

2. Knead dry oatmeal into oatmeal mush. Form the dough into a small loaf and bake with a moderate heat. The dough may be rolled thin —one-fourth inch—and cut with a cake cutter. Makes very nice cakes.

Mixed Bread.

Take three parts of corn meal, and one part each of wheat meal, oatmeal, and rye meal. Scald with boiling water after mixing thoroughly. Steam six hours, and bake half an hour.

Rye-and-Indian Loaf.

No. 1. Take equal parts of rye and corn meal. Scald the latter with enough boiling water to wet it thoroughly. Add the rye meal and sufficient water to admit of stirring with a large iron spoon. The loaf should be about three or four inches thick. Smooth it over with the wet hand, and place on the top of the stove where the heat is not quite sufficient to burn it, and let it simmer an hour or two until cracks appear on the surface. Then bake with a moderate heat for three or four hours. To prevent too thick a crust, it may be steamed three hours and then baked one. If the bread proves sticky and heavy, the batter was too thin, or the meal was too fine; if it is hard, it was not wet enough.

No. 2. Take one part rye meal, or coarse wheat meal, and two parts corn meal; pour boiling water over the corn meal, and stir it till the whole is sufficiently wet to work in the meal without adding any more water, and then, when about milk warm, work in the meal. Should the dough be too stiff, add as much warm, *but not hot*, water as may be necessary; bake in a round iron dish from three to five hours. This bread, when new, or a day or two old, may be sliced and toasted; it is very sweet and wholesome. The crust is apt to fall off; this may be wet in water and put in a stone jar with some

moderately tart apples, peeled and sliced, nicely covering the apples with the crust; then add a little water, and cover the dish with a tightly-fitting cover; set it on the stove till the apples are cooked, and then take the crust off into plates; sweeten the apples to suit the taste, and spread over the crust. Or, the crust may be broken and stirred into the apples, thus making a very excellent dish.

Brown Bread.

Several good recipes for making this excellent New England bread are recommended by successful cooks. We give a number to suit various tastes.

No. 1. Take four cups corn meal, four cups rye meal, and one cup wheat bran or middlings. Mix with warm water, making a pretty stiff batter. Bake in covered dishes in a moderate oven three hours.

No. 2. Take equal quantities of rye and corn meal, and mix with water, making a dough that can be kneaded. Work with the hands until it loses its stickiness, and will readily cleave from the fingers. Let it stand several hours, or over night, and bake in loaves, in covered dishes, in a moderate oven, from three to five hours. Or, it may be steamed three hours, and baked one. Coarsely-ground meal is better than fine for this kind of bread.

No. 3. Take such proportions of corn and rye meal as desirable, and one-eighth to one-fourth of wheat bran or shorts. Mix with either warm or cold water, and not too thick to be easily stirred with a spoon. Bake slowly at first. Wheat meal may be used in place of the rye

meal; in which case the batter should be somewhat thinner.

Pumpkin Brown Bread.

Equal parts of sifted pumpkin and rye and corn meal may be made into very excellent bread by treating according to almost any of the above recipes.

Apple Brown Bread.

Pare and core a few juicy apples, either sweet or mildly sour, stew and thoroughly mash. Then work in equal parts of corn and rye meal until the batter is of proper consistency, and the whole is thoroughly mixed. Bake as directed for other kinds of brown bread.

Rusk.

Bread or crackers of any kind may be made into rusk by first drying till brown and then grinding in a coffee or hand mill. This is a very serviceable article for thickening puddings, soups, etc.

Graham Crackers.

Mix graham flour and cold water into a very stiff dough. Knead, and roll a quarter of an inch or less thick. Cut into any desired form, prick with a fork to prevent blistering, and bake in a hot oven fifteen or twenty minutes.

Graham Crisps.

No. 1. Mix same as above. Roll very thin, and bake quickly in a hot oven. Excellent food for dyspeptics.

No. 2. Make a thin batter of any kind of meal,

pour into any convenient baking dish, one-eighth of an inch deep. Bake until crisp. Very tender when warm, but become tough by standing.

Oatmeal Crackers.

Mix finely-ground oatmeal with water sufficient to wet it thoroughly, usually one part of water to two of meal. Roll about one-fourth of an inch thick. Bake carefully, as they will be liable to burn. These are excellent crackers to eat with mushes of all kinds. They have a peculiar nutty flavor which makes them very palatable.

Oatmeal Crisps.

Into oatmeal mush, or scalded oatmeal, knead a small quantity of graham flour. Roll very thin, prick with a fork, and bake upon a grate. Be careful that they do not burn. They are very tender and crisp when warm. If they are kept several days, place in the oven a few minutes just before they are to be eaten.

Corn-Meal Crackers.

Scald corn meal with boiling water, and with the hand wet in cold water form the dough into small cakes one-fourth of an inch in thickness. Bake until somewhat brown.

Graham and Oatmeal Crackers.

No. 1. Equal parts of graham flour and oatmeal made as directed for graham crackers are very tender.

No. 2. Work graham flour into oatmeal pudding, forming a pretty stiff dough, and kneading well. Bake until nicely brown in a moderate oven.

Graham and Corn-Meal Crackers.

No. 1. Excellent crackers may be made by using one-third corn meal and two-thirds graham flour. The corn meal should be scalded before adding the graham flour.

No. 2. Work graham flour into cold corn-meal pudding. Knead thoroughly, roll thin, and cut into square cakes. Are very tender when warm.

A large variety of crackers may be made by combining graham flour, oatmeal, corn meal, and rye meal, in various proportions.

Those who have not become fully weaned from fermented bread and soda biscuit will find the following recipes an improvement upon many of the old methods; we do not recommend them, however, and advise all, especially invalids, to use only the more strictly hygienic kinds of bread already described:—

Leavened Graham Bread.

No. 1. Into three pints of warm water, stir graham flour sufficient to make a batter about as thick as can be well stirred with a spoon. To this, add two large spoonfuls of hop yeast. Cover, and set in a warm place to rise. When light, stir again, and let it rise the second time. This will make two ordinary loaves of bread. Put into tins, and set in a warm place about ten minutes, or till it begins to rise the third time. Bake about one hour.

NOTE.—If mixed too thick, the bread will be dry and hard; or if it gets too light before baking, it is not so good; but made just right, it will be nearly as fine grained and spongy as the best fine-flour bread.

No. 2. Make a thin batter of flour and warm water (some prefer fine flour to graham). The water should be about 100° temperature. The batter should be just thick enough so that it will not separate by standing. Place the batter in a warm place for about six hours, at the end of which time it will be found to be light. It should not be allowed to stand long enough to acquire any unpleasant smell. Thin with warm water and stir in enough graham flour to make a dough thick enough to mold. Mold thoroughly, and place in baking tins, allowing it to stand an hour or two until it becomes light. Some use milk.

Sweet Brown Bread.

Take one quart of rye flour, two quarts of coarse corn meal, one pint wheat meal, half a teacupful of molasses or good sugar, and one gill of potato yeast. Mingle the ingredients into as stiff a dough as can be stirred with a spoon, using warm water for wetting. Let it rise several hours, or over night; then put it in a large, deep pan, and bake five or six hours.

Gems.

The addition of milk and eggs to gems made from the various grains as previously directed, is thought by some to make them more palatable. They are less healthful, for reasons already explained; still they are much better than soda or saleratus biscuit, and if either *must* be used, by all means employ eggs and milk instead of soda, saleratus, cream tartar, or sour milk.

Buckwheat Griddle Cakes.

Make one quart of flour into a thin batter with lukewarm water. Add a handful of Indian meal

and half a teacupful of yeast. Keep in a warm place over night, and bake in the morning.

Rice Griddle Cakes.

Soak over night one quart of cold, boiled head rice, in a pint of milk or water; the next morning add one quart of milk and stir in nearly as much flour and two well-beaten eggs. Bake on a soapstone griddle. Fine bread crumbs or rusked bread, mixed with rice, improve this cake.

Pumpkin Griddle Cakes.

Take equal quantities of strained pumpkin and sweet milk. Thicken with corn meal. Allow it to stand over night, and bake slowly on a soapstone griddle.

TOAST.

Fruit Toast.

Slice thin and toast cold soft biscuit. Place in a proper dish and pour over the slices hot canned whortleberries, raspberries, or similar fruit, with much juice. Eat with oatmeal cracknels. Some cooks soften the toast with hot water before adding the fruit.

Peach Toast.

Cut into halves soft biscuit, and brown nicely. Pour some of the juice of canned peaches into an earthen baking dish. Lay in the slices, and place upon each a piece of peach. Place in an oven, and bake twenty minutes.

Tomato Toast.

Nicely brown tender bread, and place in the dish in which the toast is to be served. Pour

over it a proper quantity of tomatoes stewed as directed elsewhere.

Dry Toast.

Any kind of graham bread when toasted is an excellent article for dyspeptics. It has several advantages; the most important are, 1. It requires sufficient mastication to thoroughly insalivate it; 2. It undergoes a change during the process of toasting which renders it more easy of digestion. Simply drying is not sufficient. The bread must be browned; but care should be exercised not to burn it.

Milk Toast.

Scald sweet milk, and thicken it with a very little flour or wheat meal. Carefully toast both sides of either brown or white bread (stale bread is best), cracker, or biscuit, till its color becomes yellowish brown; then put it in the dish for the table, just covered with the thickened milk gravy. Add no butter.

This recipe is not strictly hygienic; but we can heartily recommend it in preference to butter toast, which is one of the very worst articles of food, notwithstanding the fact that it is so frequently provided for sick people.

Fruit-Bread and Cake.

The contrivances usually designated by these names are the most prolific sources of dyspepsia and "biliousness" of which so many people complain. Even those who are the most careless

with reference to everything that pertains to hygiene seem to learn this fact after having ruined their health by indulgence in every savory compound of fine flour, sugar or molasses, lard, sour milk and saleratus, which ingenious but ignorant cooks could invent. For this reason, most chronic dyspeptics stand in mortal fear of anything that looks like a cake; but we would assure them that the cakes we recommend are such that even the dyspeptic may partake without fear of harm; at least, unless he is so badly diseased that "nothing agrees with him."

Fruit Gems.

Make a batter as for gems. Add a few whortleberries, chopped apples, dates, raisins, or any other fruit desired. Bake in gem pans as directed for gems.

Fruit Cake.

Stew and mash any kind of fruit desired, either fresh or dried; as apples, pears, or berries. Have plenty of juice. While boiling hot, pour it upon wheat meal with which a few cut raisins have been previously mixed. Form into loaves with slight kneading on a board with plenty of flour. Bake in rather small cake dishes, one to two hours. The oven should not be excessively hot, and should be quite moderate toward the last.

Sweet Potato Fruit Cake.

Make a dough as directed for sweet potato bread. Add a sufficient quantity of grated cocoanut and chopped fruit, as dates, raisins, and figs. Roll thin, cut with a cake cutter, and bake in a quick oven.

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Apple Biscuit.

Form a thick batter by mixing graham flour with cold sweet apple sauce. Form into biscuits without kneading, and bake.

Fruit Crackers.

Make a dough as for fruit cake, mixing in chopped dates. Roll thin, form into crackers, and bake.

Strawberry Short Cake.

Make a thin batter of fine oatmeal. Let it stand over night. In the morning, add an equal quantity of graham flour, and grated cocoanut in proportion of a teacupful to each quart of flour. Bake in gem-pans in a quick oven. When cold, cut in halves, and cover each half with ripe strawberries. Raspberries, whortleberries, blackberries, or stewed cranberries, may be served in the same way. If the fruit is quite sour, date sauce may be added.

Rice Cake.

To two parts of well boiled rice, add one part each of corn meal and stoned dates or seedless raisins chopped fine. Make into a soft dough with water, roll one-third of an inch thick, cut into small cakes, and bake in a moderate oven. Dust the pan with meal to prevent sticking.

Cocoanut Cake.

No. 1. With a pint of boiled cracked wheat mix a grated cocoanut, a half pint of cocoanut milk, half a pint of dried currants or other dried berries, a quart of stewed sweet apples or boiled figs, and sufficient wheat meal to make a moder-

ately stiff dough. Bake, in loaves, an hour and a half to two hours.

No. 2. Make a batter of about the thickness required for gems, by mixing graham flour with equal parts of water and cocoanut milk. Add grated cocoanut in any desired quantity.

Corn-Meal Fruit Gems.

Make batter as usual for corn gems. Add one-third berries or chopped apples. Bake in gem pans.

Whortleberry Johnny Cake.

Make a stiff dough of corn meal and boiling water. Add one-half ripe whortleberries. Form an inch thick upon a flat baking tin with the hand wet in cold water. Bake until brown.

Popped-Corn Fruit Cake.

Grind and brown in the oven a quantity of popped corn. Reduce to a pulp some kind of fruit, and mix with the popped corn to a moderately stiff dough. Form into molds and allow to stand for a half hour.

By combining the various fruits in different proportions with the several grains, a great variety of fruit cakes can be made.

The following recipes for cakes we cannot recommend, and would advise invalids to avoid using; but they are comparatively harmless beside the cakes too often used:—

Currant Bread.

Take three pounds of flour; one pound of raisins; two pounds of currants; one pint and a

half of new milk; and one gill of yeast. Warm the milk and mix it with the flour and yeast; cover with a cloth, and set it by the fire. When risen sufficiently, add the fruit, and mold it; then put it into a baking tin, or deep dish, rubbed with sweet oil, or dusted with flour; after it has risen for half an hour longer, bake in a moderately hot oven.

Fruit Loaf.

One and a half cups of bread crumbs—or soaked batter bread—one cup of wheat meal, one cup of sugar, two cups of chopped apple, and two-thirds of a cup of currants. Mix intimately, and bake till the apples are tender. This may be eaten with or without a dressing.

Whortleberry Journey Cake.

Take one pint of whortleberries, one small teacupful sugar, one pint corn meal, one tablespoonful of flour. Wet the whole with *boiling* water, and bake in small, round cakes in a *hot* oven twenty minutes.

Cocoanut Cookies.

One cup good wheat meal, one-half cup grated cocoanut, and one-half cup sugar. Rub these thoroughly together, then wet with a scant half cup of water—just enough to make a dough as soft as can be readily worked. Roll out to one-third of an inch, cut into shapes, and bake in a pretty quick oven about fifteen minutes. Some care is required not to bake them too hard.

Currant Cookies.

Substitute Zante currants for the cocoanut in the above, and proceed in the same manner. Or

if preferred, chopped raisins or dried whortleberries may be used.

Cream Cake.

One pint sweet cream, one cup white sugar, one cup raisins or currants, one egg if desired; graham flour for rather a thin batter. Bake in bread pans. Or the same may be made into a dough, molded and cut into cakes or formed into rolls. Bake in a quick oven.

PUDDINGS.

Puddings are among the staple articles of diet with hygienists; but they become the cause of much mischief to the digestive apparatus. This is due to the improper manner in which they are eaten. Many people eat pudding very much as they would soup, without the slightest attempt at mastication. Of course mastication is not necessary to soften this kind of food, as is the case with many other articles; but simply breaking up or comminuting the food is not the sole object of mastication. One most important object is to secure the thorough admixture of the saliva with every particle of food taken into the stomach. This is especially necessary with farinaceous foods, of which puddings are usually made. When this does not occur, digestion is rendered much more difficult, and is likely to become impaired. To obviate this difficulty, some kind of dry food should always be eaten with puddings and soups of all kinds. Crackers made according to the recipes already given are the best for this purpose.

This will insure thorough chewing. Puddings will be relished better if eaten with bread or crackers made from some other kind of grain. They are almost always made too thin.

General Directions.

1. Too violent heat is a thing to be carefully avoided at all times. Gentle heat will cook all kinds of grains and vegetables much more efficiently than violent heat.

2. Soft water should always be employed. No salt is needed after a person has learned to appreciate the delicate flavors of the natural grains.

3. Much stirring is also damaging to puddings, as it makes them less light than they would otherwise be, and many times makes them more likely to burn. This is particularly true of samp.

4. When fruit of any kind is added to puddings while they are cooking, it should be previously cooked, and then added just before the pudding is done. Otherwise it will be likely to settle to the bottom and burn. Oatmeal, corn meal, graham, and farina puddings, are rendered much more palatable by the addition of some kind of fruit, or grated cocoanut.

Graham Pudding.

Sift the meal slowly into boiling water, stirring constantly until it is a little too thick to settle flat. If made from coarse meal, it will be as thick when done as when first mixed; but if the meal is fine, it will become somewhat thinner. Allowance can easily be made for this when fine meal is used, by making a little thicker at first. After stirring in the proper amount of meal, set the kettle upon a part of the stove where it will

simmer without burning. Let it remain thirty or forty minutes without stirring. By this method the pudding is made light, and is thoroughly cooked. It may be molded in cups dipped in cold water, and allowed to cool, if desired.

Oatmeal Pudding.

Sift one part of coarsely ground oatmeal into three or four parts of boiling water, stirring five minutes or until it sets. Cover closely and put it where it will only simmer for a half hour. Do not stir after it sets, and take up carefully. It is somewhat improved by cooking three quarters of an hour.

Corn-Meal or Hasty Pudding.

The meal should be sifted, when wanted for use, with an oat seive, thus removing the coarsest of the bran. Stir into boiling water rapidly enough to be able to beat out the lumps which may form before they are cooked hard. If the meal is fine, make it as thick as desired to be when done. If it is rather coarse, use one part meal to about two and one-half parts of water. Stir frequently until it sets; then cook gently without stirring for one or two hours. To prevent burning, remove the kettle to a part of the stove where the heat is barely sufficient to keep it simmering.

Cracked Wheat.

Take one part of the wheat to four or five parts of water. In making, follow the directions given for oatmeal pudding, allowing it to simmer four or five hours. It will cook quite as fast when only simmering as when boiling hard, and

will be much less likely to burn. It is a very healthful dish.

Crushed Wheat.

This is an article recently introduced into the market. It is commonly sold in small packages by grocers. Use two parts of water to one of the wheat. Make as directed for graham pudding, and allow it to simmer an hour or an hour and a quarter.

Farina.

The proportions required are the same as for oatmeal pudding. Boil the water in a kettle. Into one-eighth as much cold water stir two-thirds of the farina to be used. Pour the mixture into the boiling water, stirring well, and then stir in the remaining third of dry farina. Cook as directed for oatmeal pudding.

Boiled Rice.

No. 1. Select good, plump, unbroken grains; after washing, pour into about eight parts of water. Let it boil rapidly until the kernels are thoroughly softened. Then strain off the water through a colander. This is the method commonly employed in India, where this article of food is called *bhat*. The water may be saved, and used for all purposes for which rice water is serviceable.

No. 2. Some recommend soaking the rice an hour or two in cold water before boiling. Then boil twenty minutes, stirring very little; and afterward place it where it will simmer for a half hour longer. When this method is followed, as little water as possible should be employed, so that the rice may merely steam at the last.

Raisins previously soaked in cold water for several hours, are a great addition to boiled rice.

Graham and Rice Pudding.

No. 1. Boil a gill of rice in three or four pints of water for twenty or thirty minutes. Stir in sufficient wheat meal to make as thick as desired, and allow it to cook slowly for half or three quarters of an hour longer.

No. 2. Cold boiled rice may also be used in the same way. Take one part rice to three of water. Carefully beat out the lumps, add the meal, and cook as directed for No. 1.

Boiled Samp.

Sift with an oat seive to remove the hulls; or if this useful utensil is not at hand, wash two or three times in water. Pour one part into three or four parts of boiling water and stir until it sets, but no longer. Cook slowly, as directed for other kinds of pudding, for two or three hours. Is sweetest when made from new corn meal.

Small Hominy.

Pour one part hominy into three parts of water and stir for about five minutes, or until it sets. Then allow it to simmer for three-fourths of an hour. When cold, it may be sliced and browned upon a soapstone griddle.

Hulled Corn.

Hulled corn or "great hominy" makes a very palatable article of food when cooked until tender. It requires cooking for several hours, and care should be exercised that it does not burn. The addition of a little green corn cream after it is cooked is beneficial.

Hominy and Beans.

A good dish is made by adding one part beans to three parts of hominy when the latter is about half cooked. Cook until both are tender. Serve warm.

Millet Pudding.

Look carefully over and wash the desired quantity of millet kernels. Scald in two successive waters and then boil in three times its measure of water. Cover close and cook slowly for an hour or more.

Boiled Wheat.

Select clean, plump, white wheat. Pick over and wash carefully. Soak over night and boil five or six hours.

Pearl Barley.

Prepare in the same manner as wheat, and boil six hours.

Tapioca.

Soak in a small quantity of warm water an hour or so. Add a little water and bake slowly, stirring frequently. Add fruit after removing from the oven. Manioca may be cooked in the same way.

Rice and Apple Pudding.

No. 1. Pare nice apples and remove the core without dividing them. Cover the bottom of a dish with moist boiled rice, and place upon it the apples with their centers filled with chopped dates and raisins. Cover with the rice and bake in a closed dish until well done.

No. 2. Prepare the apples in the same way.

Spread the rice upon a thick piece of cloth previously wet in cold water. In the center of the cloth place an apple which has been filled with dates, and carefully bring the edges of the cloth together, enveloping the apple. Tie with a string. The apple should be wholly covered with rice. Boil or steam an hour. Immerse in cold water as soon as taken from the kettle, and remove the cloth.

No. 3. Select the best ripe cooking apples. Pare, core, and cut into small pieces. Put into a saucepan and mix in a sufficient quantity of sweet fruit to sweeten. Scatter in about one part of uncooked rice to four parts apple. Fill with water, cover close, and bake two hours in a moderate oven.

Christmas Pudding.

No. 1. Place a layer of partially boiled rice in a deep basin or nappy. Place upon it a layer of sliced apples, raisins, and chopped dates. Add another layer of rice, and so alternate until the dish is full. Cover and bake half an hour.

Berries or fruit of any other kind may be served in the same way.

No. 2. Boil one pint of pearl barley in five times as much water, for five or six hours, until the kernels are soft. To three cups of the barley add two cups of chopped apple, one cup of raisins previously boiled until tender, a few currants, and a cup of chopped dates. The juice of a lemon may be added if desired. Mix, and bake one hour and a half. Serve warm or cold.

Corn-Meal Fruit Pudding.

Mix corn meal to a stiff dough with boiling water. Add one half as much fruit as dough,

stir well together, and bake one to two hours in a pudding dish.

Bread Pudding.

No. 1. Stew either green or dried apples until very soft. Thoroughly mash and strain if necessary. Sweeten by adding a sufficient quantity of dates prepared in the same way. Slice good graham bread or gems and soak until soft in a hot mixture of three parts water with one of lemon, orange, grape, pie-plant, or other fruit, juice. Place in the bottom of the baking dish a layer of the apple, and then of the bread, alternating until the dish is full, placing fruit on the top. Bake half or three quarters of an hour.

No. 2. Soak rusk, bread crumbs, or broken bread of any kind, until soft. Stew dried apples in as little water as possible, leaving the pieces unbroken. Mix with the bread and bake moderately two hours. Dates may be added if desired.

Steamed Bread and Fruit Pudding.

Cut into small pieces bread or crackers. Add one third each of sour apples and raisins or dates chopped fine. Mix well, and add a little water. Steam for four hours.

Tapioca Apple Pudding.

Soak a sufficient quantity of tapioca in a proper amount of water until soft. Prepare nice ripe apples, either sweet or sub-acid, and pare and core without dividing. Place a portion of the tapioca in a proper dish. Place upon it the apples with the centers filled with chopped raisins and dates, if sour; cover with the remainder

of the tapioca and bake until the apples are well done. The dish should be covered closely, and the heat should be moderate.

Sweet Potato Pudding.

Grate six medium-sized, raw sweet potatoes. Add two quarts of cold sweet cider, one cup of grated cocoanut, and an equal quantity of raisins. Thicken with graham flour, beat the batter well, and bake in a moderate oven.

Bird's Nest Pudding.

Prepare apples as directed in the preceding recipe. If the apples are sweet, place in the center of each a few dried currants; if sour, chopped dates or raisins should be used. Take a few spoonfuls of graham or white flour, wet with cold water until smooth, and add boiling water sufficient to reduce it to the thickness of cream. Fill the dish and bake until done.

Apple Pudding.

Mix one part of ripe currants with eight or ten parts of graham flour. Mix with boiling water sufficient to make as moist a dough as can be easily handled. Roll out three-fourths of an inch thick and place on a baking tin. Pare, core, and quarter ripe, sub-acid apples. Divide the quarters lengthwise and press the pieces into the dough. Bake three quarters of an hour, and serve warm with some sweet sauce.

Gooseberry Pudding.

Boil one cup of rice in six of water for half an hour. Prepare two cups of gooseberries and mix with an equal quantity of graham flour. Add the boiling rice, mix quickly, and steam three

quarters of an hour. Serve with some sweet sauce.

Chestnut Pudding.

Boil, peel, and pound chestnuts, and rub them through a seive. Pare and grate ripe, sub-acid apples. To one part of the chestnut add two parts of apples, a little lemon juice, and sufficient date sauce to sweeten. Bake slightly.

Fig Pudding.

Soak a half pound of figs until soft. Scald a quart of graham flour, and make it into a stiff dough. Fill full of the soft figs, and bake or steam an hour and a half. Serve with lemon, plum, or pie-plant sauce, as preferred. A few tart apples, chopped fine, may be added to the pudding in place of the sauce.

Tomato Pudding.

No. 1. Slice thin good graham bread or gems. Place in a baking dish with an abundance of sliced tomatoes, arranging in alternate layers. Cover close and bake an hour. Serve with sweet sauce.

No. 2. Peel and slice thin fine, ripe tomatoes. Place in a baking dish in layers, strewing between the layers equal parts of rice and chopped dates. Cover closely and bake in a moderate oven for two or three hours. Serve as preferred.

Green Corn Custard.

No. 1. Peel and shred sweet, mellow peaches. Add an equal quantity of grated sweet corn, and the same quantity of water. Mix well, and bake in an earthen or porcelain baking dish for twenty minutes or half an hour. A little corn starch

may be added for thickening, if necessary. Excellent without dressing of any kind.

No. 2. Another custard can be made by using one part corn to two parts juicy tomatoes, peeled and sliced.

Grated apples, sliced plums, or almost any kind of fruit may be thus used with green corn.

Apple Custard.

Grate sweet, or pleasant sour, apples, or both together. Mix a small quantity of dry flour, allowing a spoonful for each pie. Cover a deep pie dish with crust. Spread in a half cup of chopped raisins or dates, fill with the apple, and bake. Must not be allowed to stand before baking.

Oatmeal Jelly.

Soak two parts of oatmeal in three parts water over night. In the morning, drain off the water and add to it an equal quantity of hot water. Boil over a quick fire. Stir until it boils, then moderate the heat and let it simmer ten minutes and turn into molds. It will set in a short time and may be served warm, in saucers, with fruit juice of some kind.

No sugar or milk has been recommended in any of the foregoing recipes for puddings, for reasons fully explained in the introductory portion of the book. The use of a small quantity of sugar, however, is not wholly condemned, if the best is selected, and if it is mainly confined to such purposes as sweetening sour fruits. If the milk is obtained from healthy animals, it may be

even less objectionable than sugar; yet it can be almost wholly dispensed with by using sweet corn milk and cream, which is much more healthful. Sugar or milk can be added to such of the above recipes as seem to require them by those whose tastes refuse to be satisfied without. Such persons may also make use of the following recipes, though doubtless with some detriment to health :—

Bread Pudding.

Pour a quart of boiling milk on as much bread, biscuit, or crackers, broken or cut into small pieces, as will absorb it; cover it, and let it remain till quite cool; then sweeten, and bake an hour and a half.

Rusk Pudding.

One and one-third cups rusk, half a cup sugar, two cups sweet apples, sliced, two quarts milk. Stir together and bake two hours and a half.

Baked Apple Pudding.

Pare, core, and slice about two quarts nice tart apples. Add to them one teacupful of Indian meal, one cup graham flour, and stir together. Pour over them three-fourths of a cup of sugar dissolved in one cup cold water, or sweet milk, stirring till all the flour is wet. Butter or flour a deep basin or pan to prevent sticking, and turn the mixture into it, smoothing it evenly over the top. Then spread smoothly over it a batter made by stirring together half a cup of cold water, or sweet milk, three tablespoonfuls of Indian meal, three ditto of graham flour, and one tablespoonful sugar. Bake about two hours and a half.

NOTE.—This is to be eaten with sweetened cream or a sauce made by stirring into one quart boiling milk, two heaping tablespoonfuls of corn starch, moistened with cold milk, letting it boil for five or ten minutes afterward. Sweeten according to taste.

Green Corn Pudding.

To one quart of grated ears of sweet corn, add a teacupful of cream, one gill of milk, a tablespoonful of flour, and two ounces of sugar; mix all together, and bake an hour and a half.

Cracked Wheat Pudding.

Boil wheaten grits till quite soft, then dilute with milk to the proper consistency. It should be rather thin; sweeten, and bake one hour.

Baked Rice Pudding.

A small teacup of rice carefully washed, half a teacup of sugar, two quarts of new milk. Stir well together, and let it bake two hours or more in a moderate oven. It is well to stir it once or twice at first, that it may mix well with the milk when swelled.

Tapioca Pudding.

Soak the tapioca in warm water or milk an hour or two. Then add milk, or milk and water, and a little sugar. Bake slowly, stirring frequently. When done, add fruit. About one cupful of tapioca is required to make four quarts of pudding.

Corn-Starch Pudding.

Beat together one egg, two spoonfuls of corn starch, and two spoonfuls of sugar, with a little milk. Set on to boil, one pint each of milk and water. When boiling, add the beaten mixture,

and cook one minute. Dish up, and ornament with drops of jelly.

American Plum Pudding.

Take one pint each of graham flour and corn meal. Scald the corn meal, then add the wheat meal, with two thirds of a pint of Malaga raisins —more or less to suit the taste—with water sufficient to make a batter just firm enough to hold a stout spoon upright. Mix thoroughly, and put it into a pudding boiler, or any suitable covered dish, and boil or steam three and a half or four hours. If the corn meal is coarse, and the mixture of the right consistency, the pudding will be perfectly light. The long cooking makes the raisins rarely delicious. Other fruits may be used in their place, as prunes, prunellas, dried cherries, dried pears, etc.; but the fresh and the more tender fruits will not endure the long cooking. Serve warm with fruit sauce.

Pastry

Pie is a word which to the dyspeptic is a synonym for every pang and torment of indigestion. This fearful significance, however, is not due to any inherent evil in the article itself, but rather to its various usual concomitants which are added by the cook under the name of shortening, flavoring, etc. But pies made according to the methods we shall recommend are wholly harmless, even to the poor victims of weak stomachs and impaired digestion. The chief mischief-making element of the ordinary pie is the crust,

which is usually a conglomerate mixture of a very small quantity of superfine flour with lard in abundance, and sometimes with the addition of sour milk, soda, saleratus, etc. Such a compound might very justly inspire dread in the stoutest stomach, to say nothing of a diseased one.

But the contents of pies are usually by no means free from objection. The spices and various condiments, together with the large quantities of sugar employed, are entirely inimical to health. All of these may be wisely discarded, and that without any loss of palatable qualities, and a great increase of nutritive value. The natural flavor of our native fruits is quite sufficient when presented in shape to be appreciated; and for sweetening, we have the various kinds of sweet fruits, as sweet apples, dates, raisins, figs, etc. By combination of various foreign and domestic fruits, as great a variety of healthful and palatable pies may be made as could be desired.

No one need entertain the slightest apprehensions regarding the healthfulness of pies made according to the following recipes.

Oatmeal Pie Crust.

Scald two parts of oatmeal with one part of hot water. Roll thin. It bakes very quickly, so that fruit which requires much cooking must be cooked before making into the pie. This remark, however, applies only to pies which are baked with an upper crust. This crust is very tender, and possesses all the desirable qualities of shortened pie crusts, with none of their deleterious properties.

Potato Pie Crust.

Boil one quart dry, mealy potatoes. The moment they are done, mash them, and sift through a colander. Rub them evenly through two cups of graham flour in the same manner as the shortening in common pie crust. Have ready one cup corn meal; pour over it one and one-third cups boiling water, stirring it till all the meal is wet, then add it to the potatoes and flour, mixing only until thoroughly incorporated together. No more flour should be added. The molding board should be well covered with dry flour, however, as it is slightly difficult to roll out. It should be rolled very thin, and bake in a moderate oven.

NOTE.—It is very essential that the above conditions should all be complied with. Bear in mind that the potatoes must be *hot*, and mixed immediately with the flour; the water be poured, while *boiling*, upon the corn meal, and the whole mixed together very quickly, and baked immediately. Inattention to any of these requisites will be quite apt to insure a failure.

Graham Pie Crust.

Make a stiff dough by pouring boiling water upon graham flour. Roll thin with plenty of flour upon the roller and board, and without kneading.

Bean Pie Crust.

Boil white beans until soft with plenty of water. Rub through a colander or sieve, and add sufficient graham flour or corn meal to make a pretty stiff dough. Roll out thin.

Mixed Pie Crust.

No. 1. Equal parts of graham flour and corn meal or oatmeal, or two-thirds graham flour to

one-third of either of the others, mixed with cold water to a stiff dough, make very excellent and perfectly hygienic pie crusts. The dough should be rolled thin, and the pie should be covered closely with a thick napkin immediately upon taking from the oven.

No. 2. To oatmeal, corn meal, or graham pudding, add a little graham flour. Knead well, and roll thin. Oatmeal with graham flour is perhaps the best combination. It is very tender when warm.

Cocoanut Pie Crust.

Two cups graham flour, one cup grated cocoanut. Make into a stiff dough with cold water and knead well. Add one cupful of well boiled rice. Mix well and roll thin. This crust is very excellent.

Corn-Meal Pie Crust.

A very tender crust for squash, pumpkin, and custard pies may be made by simply placing in the bottom of the baking tin dry corn meal to the depth of about one-third of an inch, and then placing carefully upon it the hot squash or custard, as the case may be. The greatest objection to this crust is that it is so tender that it is somewhat difficult to remove it from the baking tin without considerable breaking.

If pie crust made according to any of the above methods cannot be tolerated, and if pies must be used, notwithstanding, a little cream or milk may be added to the crust, but butter should never be used under any consideration.

Neither should soda or sour milk be employed. The following recipes may be used:—

Cream Pie Crust.

No. 1. Take equal quantities of graham flour, white flour, and Indian meal; rub evenly together, and wet with very thin sweet cream. It should be rolled thin and baked in an oven as hot as for common pie crust.

No. 2. Mix graham flour with sweet cream, and proceed as above. Fine middlings may be used in the place of graham flour if preferred.

Apple Pie.

Pare, core, and slice nice ripe apples of pleasant flavor. Prepare the crust by any of the methods described. Fill the under crust with the prepared apples, adding a little flour, and sprinkling on the whole a little water. Cut a few holes in the upper crust for the escape of steam, and place it upon the pie, wetting the edge to make it adhere closely to the lower crust and so prevent the escape of the juice. Bake until thoroughly done. It is well to moderate the heat a little for a few minutes before taking out, so that the exuded juices may be re-absorbed.

If the apples are very hard, they should be stewed before making into the pie. Sour apples may be rendered more palatable by mixing with an equal quantity of sweet apples or by the addition of raisins or dates. When raisins are used, they should first be stewed a short time.

Apple Custard Pie.

Grate sweet apples, or a mixture of sweet and sour, if preferred. Add and mix one spoonful of

dry flour for each pie. Cover a deep pie plate with crust, and add the apples. Cover the top with chopped raisins, dates, or figs.

Berry Pies.

Whortleberries, blackberries, raspberries, strawberries, cranberries, and, in fact, all the edible wild and cultivated berries, make excellent pies, either when fresh or after having been canned or dried. The sour berries may be improved by adding sweet fruits of various kinds, as dates, figs, raisins, etc.

Cranberry Pie.

With stewed cranberries, mix an equal quantity of chopped dates. Bake between two crusts. The upper crust may be made by laying strips of thin pie crust across in two directions, leaving open spaces between.

Currant, rhubarb, gooseberry, and cherry pies may be made in the same manner; or, if preferred, sweet apples may be substitued for dates.

Raspberry and Strawberry Pies.

These berries are of such delicate structure and flavor that baking greatly injures them, almost destroying their finest qualities. On this account, it is better to prepare the crust of just the right size, and bake it separately. Bake the bottom crust in the pie plate or tin, and the upper crust upon a flat surface, pricking it to prevent blistering. After baking, place the ripe berries in the dish containing the bottom crust while still hot. Cover with the upper crust, and return to the oven for a very few minutes. A very short time is sufficient to steam the fruit.

Dried Fruit Pies.

Prepare the dried fruit by first washing very quickly, and then allowing it to soak over night in cold water, cooking in the morning until tender in the same water in which it has been soaked. Each kind may be used alone, or several kinds may be mixed, as preferred. Dried apples and whortleberries are very good mixed. Berries require little more than scalding after thoroughly soaking, and should be placed in crusts while hot.

Raisin Pie.

No 1. Soak good raisins over night in cold water. Stew slowly until tender. Dredge well with flour, adding a few slices of tart apples or lemon if desired. Bake with two crusts.

No. 2. Chop a sufficient quantity of nice, large raisins. Mix a spoonful of flour or corn starch with a cup of water, and add to each pie. Bake with two crusts.

Lemon Pie.

Two cups sweet apple sauce; two sliced lemons; one teacup of chopped raisins; one raw potato, grated; a very little corn starch and flour. Bake with two crusts after properly mixing.

Tomato Pie.

Scald smooth, ripe tomatoes, peel and slice, and make as directed for apple pie.

Peach Pie.

Pare, and cut into thin pieces, nice, ripe peaches; sprinkle with water if not sufficiently juicy, and dredge with flour.

Sweet apples and pears may be made into excellent pies in the same manner.

Batter Pie.

Stir wheat meal, or a mixture of wheat and corn meal, into water, making a batter a little too thick to settle flat. With this, cover a pie tin or nappy, and place upon it a layer of small fruit, unbroken. Then place batter on the sides of the dish, and add another layer of fruit, covering the whole with a thin layer of batter. If the fruits are very juicy, a little flour should be sprinkled upon each layer to absorb the superfluous juice. Bake from forty to sixty minutes. Care must be taken that the juices do not boil over and escape into the oven.

Pumpkin Pie.

Pare, cut, and stew a ripe, sweet pumpkin, using as little water as possible, and preserving all of the juice. Rub through a colander or sieve, and mix with it a little flour, about one gill to a quart of the stewed pumpkin. If too stiff, add a little water. Bake in one crust. A few chopped dates may be added for sweetening.

Custard Pie.

No. 1. A very good substitute for custard pie may be made even without the use of either milk or eggs. Boil Iceland moss in water until it will make a nice jelly. Flavor it with any kind of berry juice, lemon, or grated cocoanut. Do not use the flavoring extracts to be obtained at the stores, however, as most of them are spurious articles, and are sometimes absolutely poisonous.

No. 2. Prepare crust as usual for custard pie. Prepare filling as elsewhere directed for green corn custard.

Apple Dumplings.

No. 1. Make a crust of graham flour and corn meal, two parts of the former to one of the latter. Roll one-fourth of an inch thick. Select, and pare and core without dividing, a number of nice, ripe, sub-acid apples. Fill the center with chopped dates or raisins, and envelop in the crust. Bake until both fruit and crust are well cooked. They require a quick oven at first, but the heat should be moderated after the crust is browned.

No. 2. Make a batter as for gems, and with it cover the bottom of a patty pan to a depth of a quarter of an inch or a little more. Lay in half of a ripe, sub-acid apple which has been previously pared and cored. Cover with batter, and bake as directed in the preceding recipe.

Cranberry Dumpling.

Thoroughly mix two parts of cranberries and one of chopped dates. Spread in an even layer upon a crust previously prepared. Commence at one side and carefully form the whole into a roll. Cut the roll into pieces about two inches long; cover the cut ends of each piece with crust, after wetting it to make it stick, and bake. If the dumplings require any further sweetening, they may be eaten with sweet apple sauce. May be either baked or steamed.

Cherry Dumpling.

Cover the bottom and sides of a basin or deep baking dish with batter made as for gems. Cover

the bottom with a layer of cherries and chopped dates or raisins in abundance. Sprinkle on a little flour, and form another layer in the same way. Two or three layers should be thus made, with no batter between them. Cover the whole with a crust and bake in a moderate oven, first on the top until brown, and then on the bottom. May be eaten either warm or cold. In order to save the juice, do not fill the dish quite full.

Raspberries, blackberries, grapes, and nearly all kinds of berries, may be served in a similar manner.

Snitz and Dumplings.

Boil a quantity of dried sweet apples in four or five times as much water, until tender. Then make a small quantity of batter as for gems, and drop into the boiling fruit with a small spoon. Boil a few minutes longer to cook the batter.

Tarts.

No. 1. Cover gem pans with cocoanut pie crust. Place in a quick oven. When nearly done, add a few ripe sweet berries of any kind. Let them remain in the oven a few minutes longer to soften the berries.

No. 2. Make a stiff dough of equal quantities of graham flour and grated cocoanut, with cold water. Roll very thin and cut into cakes two and one-half inches in diameter. Make rings of most of the cakes by removing the centers. Then place three or four of these rings upon each one of the remaining pieces, wetting them to cause them to stick together. Prick the center piece with a fork, and bake in a hot oven. Be careful

not to brown them. Add any kind of sauce when they are desired for use.

Grape Tarts.

Strain canned grapes to remove seeds and skins. Add bread crumbs and thoroughly mix. Make a dough of oatmeal as directed for cracknels; roll thin, and bake in gem pans. After removing from the oven, add to each a spoonful of the prepared grape sauce.

No sugar has been employed in the above recipes; but if it is considered indispensable, or if sweet fruits cannot be readily obtained, it may be used when considered desirable, always in moderation, however. None but the best coffee or maple sugar should ever be employed. The following recipes are not so injurious as less hygienic ones, but they are far inferior to the preceding, and cannot be employed without a certain amount of detriment to the system. Their principal use should be to assist in making the change from bad habits to better ones.

Custard Pie.

One pint and a half of milk, three eggs well beaten, and a large tablespoonful of sugar. Bake only slightly, as hard baked eggs are hard of digestion.

Rice Pie.

To one pint boiled Carolina rice, add one pint and a half of milk, and half a cup of sugar. Flavor with extract of lemon, and bake in an under crust. Raisins may be added if preferred.

An egg adds to its attractiveness with some, but detracts from its healthfulness.

Pumpkin Pie without Eggs.

Those who have never tried it will be astonished to see how palatable a pumpkin pie may be made without eggs or spices. Select for the purpose a pumpkin of firm texture, deep color, and perfectly ripe. Stew and sift in the ordinary manner, and add boiling milk to make it somewhat thicker than when eggs are used. Sweeten to suit, with equal parts of sugar and molasses. Some add pounded cracker or a spoonful of flour. Bake in a hot oven, on a single crust.

FRUITS.

To an unperverted taste, nothing is more palatable and delicious than the natural flavors of the various domestic and foreign fruits which constitute so important a portion of a genuine hygienist's bill of fare. They are certainly toothsome enough, and much more wholesome, without the irritating condiments too often mingled with them by fashionable cooks. Even sugar, which in moderate quantities is the most harmless of all the condiments, may be wholly dispensed with by the exercise of a little ingenuity of mingling sweet with sour and sub-acid fruits. By this method, the many evils which arise from the use of large quantities of sugar, to which so many people are strongly inclined, will be wholly avoided, and yet all the requirements of taste and nutrition be fully met.

Unripe fruit should never be eaten when ripe can be obtained, and then only when well cooked. Most ripe fruits require no cooking. In cooking fruits, none but stone or porcelain-lined vessels should ever be used. Brass and copper are dangerous. The same is often true of tin on account of its adulteration with lead.

Baked Apples.

Moderately tart apples, or very juicy sweet apples, are best for baking. Select good ripe apples, free from imperfections, and of nearly equal size. Wipe carefully to remove all dirt, and bake an hour in a dish containing a little water. Sweet apples require a little longer baking.

Baked Apples and Dates.

No. 1. Select fine, large, sour apples. Pare and core them without dividing. Fill the center with dates. Place them in the baking dish, adding a little water, and bake until well done.

No 2. Pare, core, and cut into small pieces a sufficient number of sour apples. Chop fine one-third the quantity of stoned dates or raisins. Place a layer of the apples in a deep baking dish. Add a layer of the dates. Alternate thus until the dish is full. Add a little water if much juice is desired. Bake slowly.

Steamed Apples.

Apples may be steamed either whole or when pared and divided. More time is required than for baking, and the latter method is usually preferable.

Green Apple Sauce.

By green apples is not meant unripe ones, but

undried ones. Select ripe, juicy, well-flavored apples, either sweet or sour, or both. Pare, quarter, and core quickly, not allowing them to stand after preparing them, to prevent their becoming dark. Boil with a little water until tender. They may be flavored, if desired, with lemon or with other fruit or juices. Sour apple sauce is very well sweetened with dates and raisins. The sauce is richer if the apples are cooked with the skins on.

Dried Apple Sauce.

Wash good dried apples and boil slowly in sufficient water to cover them. If preferred, the sauce may be flavored with lemon, dried quince, peach, dates, or any other fruit.

Baked Pears.

Pears should be baked as directed for baked apples. They are very excellent.

Pear Sauce.

Pears may be pared and cored as apples, or they may be boiled whole. They are delicious either way. Being quite sweet, pear sauce is an excellent article to serve with dishes which would seem to require sugar. Figs may be added if desired.

Peach Sauce.

Peaches hardly ripe enough to eat uncooked, make very good sauce when pared and boiled. The stones should not be removed. When ripe, or nearly so, the skins can be conveniently removed by immersing the peaches in boiling water for about two minutes, and then rubbing them with a coarse towel. Moderate heat only

should be employed in cooking peaches as they do not stand but very little heat. Figs make the best seasoning.

Dried Peach Sauce.

Dried peaches should be stewed in the same manner as dried apples.

Apricots.

This is not a very abundant fruit. It should be cooked according to the directions given for cooking peaches.

Pineapple.

This is a tropical fruit, and is seldom seen here in its perfection. Its chief value is as a flavor for other fruit. It may be preserved for use in this way by canning.

Quinces.

These are of little value of themselves, but give an excellent flavor to many other kinds of fruit. They may be preserved for this purpose by canning.

Grape Sauce.

Stew ripe grapes in as little water as possible. Some sweet fruit will be required with them by most people.

Cranberry Sauce.

Cranberries make very excellent sauce when mixed with a considerable quantity of sweet apples or dates.

Stewed Raspberries.

Nice, ripe raspberries are quite as good fresh as when stewed; but if they are cooked, care must

be used to avoid cooking too long, as they are very delicate, and lose some of their best qualities when subjected to long cooking. Simply scalding is all that is required. A few dates may be added if sweetening is desired.

Strawberries.

These berries are so delicate that, for the taste of many people, they are greatly injured by cooking. When ripe, they need no addition to their own natural, delicious flavors.

Currants, blackberries, gooseberries, whortleberries, and cherries make excellent sauce, and may be prepared much the same as other small fruits.

English Currants.

This is a very useful fruit as an addition to other fruits and to puddings of various kinds. It also makes an excellent dish when stewed alone like other dried fruit.

Plums.

Of the many varieties of plums, some are edible raw, being sweet and wholesome, while others require cooking and the addition of sweet fruit of some kind to render them palatable.

Dates.

Dates are mostly employed to sweeten sour fruits. They may be eaten alone, however, either raw or cooked; but only small quantities should be eaten, as they are too sweet to be very wholesome.

Bananas.

This is a very nourishing tropical fruit. It is best eaten raw. It should be peeled and sliced,

and may be eaten with bread or puddings. Some prefer to add orange or lemon juice. It may be baked with the skin on, or may be made into pies or puddings. It may be canned like other fruit, and makes an excellent addition to puddings.

Rhubarb.

Peel the stalks and cut them into thin slices. Stew in a small quantity of water with a sufficient quantity of dates to sweeten to the taste.

Oranges and Lemons.

These are mostly used to flavor other food. Oranges may be eaten alone. They are seldom obtained here in perfection.

Steamed Figs.

These make a very delicate and showy dish for dessert. They should be placed in a steamer and steamed until tender.

Raisins and prunes may be cooked in the same way.

Stewed Prunes.

Prunes make excellent sauce. They should be first hastily washed and then cooked gently until tender.

Sugar has purposely been wholly omitted from the above recipes for the benefit of those who may wish to exclude that article from their bill of fare, which is really a very desirable thing when it can be done without any disadvantage. Those who find the use of a certain amount of sugar desirable, have only to omit the sweet fruits and substitute sugar in moderate quantities. Excess is very injurious. A little cannot be considered harmful.

Steamed Squash.

Steamed squash is much nicer and sweeter than boiled. The squash should be cut into several pieces, freed from seeds, and placed in a steamer. The heat should be moderate. Mash if desired.

If boiling is more convenient, use only sufficient water to prevent burning, and reduce the juice to a sirup by the time the squash is sufficiently cooked.

Baked Squash.

Baking is a still better method of cooking squash. It retains all the original sweetness of the vegetable. Select a good, ripe squash, wipe thoroughly, and free from seeds. Cut into pieces of convenient size, and bake without removing the shell.

Pumpkin.

Pumpkin may be cooked in the same way as squash, but requires a little longer time. Long cooking improves it.

Stewed Tomatoes.

Scald until the skins wrinkle, and then peel. Slice thin, and stew with a moderate heat for half an hour. Thicken with rusk, graham bread crumbs, pounded crackers, or oatmeal. Grated green corn is another excellent material for thickening. Cook a few minutes longer after adding thickening. Tomatoes are richer if cooked two hours.

Apple and Tomato Sauce.

Cook tomatoes as directed above, and add sliced apples when half done. Cook until the apples are tender.

Stewed tomatoes may be mixed with various other fruits and vegetables, forming a great variety of palatable dishes.

Nuts.

Many kinds of nuts are both wholesome and palatable. When eaten in moderation, they are objectionable for very few. Among the better varieties are almonds, chestnuts, filberts, hickory nuts, walnuts, Brazil nuts, pecans, peanuts, and cocoanuts. Chestnuts and peanuts are improved by roasting. Chestnuts are excellent when boiled or steamed.

Nuts are often a very pleasant addition to cake and some puddings. They should always be eaten at the regular meal, constituting a part of it.

Melons.

These are wholesome when ripe. They should never be gathered until they are fully matured; are best when fresh. Cooking cannot improve them.

Sauces.

Date Sauce.

Chop nice, clean dates and boil with a small quantity of water until very soft. Rub through a sieve to remove the stones. Thin slightly with hot water, add a little lemon juice, and boil a moment longer. This is an excellent dressing for dishes which require sweetening.

Grape and Apple Sauce.

Stew together equal parts of grapes and sweet apples. Strain through a thin cloth, and thicken

with a little flour. Use for puddings. Sour apples and dates may be used, if preferred, instead of sweet apples.

Pear Sauce.

Flavor the juice of stewed pears with lemon or lime juice, or place in it, while hot, a few slices of lemon.

Orange Sauce.

Add grated orange peel and orange juice to date sauce prepared without the addition of lemon, unless the orange is very sweet.

Sweet Apple Sirup.

A very nice dressing for puddings may be made by boiling new sweet-apple cider to the consistency of thin sirup. If sufficiently concentrated, it will keep without canning. It may be simply scalded and then canned for use in pies and sauces. The cider should be made of selected apples, and should be boiled the same day that it is made, so that fermentation may not begin.

Other sauces can be prepared from the juices of almost any kind of fruit. Some will be improved by thickening a little with flour or corn starch.

VEGETABLES.

The usual methods of cooking vegetables render some of the most nutritious of them almost wholly worthless as food, and, in fact, next to impossible of digestion. But if the following directions are carefully observed, many excellent and whole-

some dishes may be prepared from the large class of roots, seeds, etc., known as vegetables.

General Directions.

1. The remark with reference to the cooking of grains by gentle heat is equally true with vegetables, as a general rule. The cook should bear in mind that when water is boiling, it cannot be rendered any hotter, no matter how much the fire may be increased, without closely confining the steam.

2. With only one or two exceptions, all vegetables are much richer and more nutritious when served in their own juices. A great amount of nutriment is wasted by cooks who throw away the water in which vegetables have been boiled. To avoid such waste, and render the food as nutritious as possible, always cook vegetables with just sufficient water to keep them from burning until done, so that there will be little left unevaporated by the time the food is sufficiently cooked.

3. Do not add any condiment of any kind. Grease of all kinds is especially objectionable, as the process of cooking produces certain changes which render tenfold worse an article which is very objectionable at the best. The reason why many dyspeptics cannot eat vegetables without intense suffering, is that these otherwise harmless articles of food have been poisoned by the admixture of such irritating and indigestible things as butter, pepper, salt, mustard, etc.

4. Vegetables should be well cooked, but overcooking is very damaging.

5. All vessels used in cooking vegetables should be kept scrupulously clean. When brightly pol-

ished, they will not only corrode less rapidly, but will impart less of their substance to the articles cooked in them. Brass and copper vessels should receive especial attention, as they become sources of poisoning, when mingled with the food.

Boiled Potatoes.

Select potatoes of nearly equal size, wash thoroughly, cutting them as little as possible. Put them into boiling water nearly sufficient in quantity to cover them. Boil with a gentle heat until soft, being careful to keep them boiling; then turn off the water and let them stand partially covered for five minutes in a moderate heat. They should not be covered close after being cooked either by boiling or in any other way. If it is desirable to retain the heat, they may be covered by a napkin folded once or twice, or the dish containing them may be set, uncovered, in the oven.

If the potatoes are old and withered, they may be soaked in cold water for a few hours before cooking.

Some excellent cooks place the potatoes upon the stove to cook in cold water instead of placing them immediately in boiling water.

Potatoes may also be steamed, or cut in slices and cooked in just sufficient water to keep them from burning. The latter method is a very expeditious one.

Steamed Potatoes.

Prepare the potatoes as for boiling. Place them in the steamer after the water is boiling well. When done, allow them to stand in the steamer uncovered for a few minutes, or remove them to the oven, to render them dry and mealy.

Mashed Potatoes.

Potatoes may be cooked as directed in either of the preceding recipes and then quickly peeled and mashed. By this method very little of the most valuable portion of the potato, which lies close to the skin, is removed. If more convenient, the potatoes may be pared before cooking, care being taken to pare as thinly as possible. The same precautions to prevent their becoming watery should be observed as already directed. Season with green corn cream.

Baked Potatoes.

Baking or roasting potatoes are by far the best methods of cooking them. They should be carefully washed and buried in hot ashes or placed in a hot oven. Remove as soon as done, and break open the skin to allow the steam to escape, so that they may not be watery. Potatoes of nearly equal size should always be selected.

Browned Potatoes.

Slice cold potatoes. Place the slices upon a soapstone griddle, or upon a baking tin in a hot oven. Remove when nicely browned. Eat while warm. Mashed potatoes may be browned by making into small cakes and placing in the oven on tins.

Sweet Potatoes.

These may be cooked in the same manner as the common potato. Baking after partial boiling is an excellent method of preparing them. They are excellent sliced and browned.

Baked Beets.

Like potatoes, and, in fact, almost all roots and tubers, beets are much sweeter baked than when prepared in any other way, as by this method of cooking all of the rich juices are retained. The baking should be performed slowly and carefully. Several hours are usually required.

Boiled Beets.

Wash carefully without cutting or breaking the roots so that the juice may not escape. Boil until sufficiently soft to yield to pressure, but do not puncture them. Place in cold water for a few minutes after removal from the kettle, and the skin can be easily rubbed off with the hand. If any seasoning is required, lemon juice may be used.

Beets and Tomatoes.

Mix equal quantities of cooked tomatoes and well boiled beets chopped fine. Boil a few minutes, and serve warm.

Boiled Parsnips.

Parsnips should be boiled as directed for beets, except that there is no objection to puncturing them with a fork to ascertain when they are done. Small ones may be cooked whole, but large ones should usually be divided. They may be cut in slices and stewed when haste is necessary. The water should all be evaporated when they are done, and they are much improved by being allowed to brown slightly in the kettle. Parsnips may be steamed as well as potatoes.

Mashed Parsnips.

Wash and scrape, carefully removing the skin. Boil until tender and mash as directed for potatoes.

Browned Parsnips.

Slice cold parsnips into rather thick pieces and brown as directed for browned potatoes.

Carrots.

Cook as directed for parsnips and beets.

Stewed Turnips.

After washing and paring the requisite number of turnips, slice them thin, and place them in sufficient water to cook them. Cover close and boil until the water is all evaporated.

Boiled Turnips.

Wash clean, wipe, and peel. Considerable of their sweetness is lost if they are allowed to remain in water after peeling. Boil whole in a closely covered kettle and serve in the water which remains when they are done. Only sufficient water should be used to keep them from burning, and this should be reduced to the consistency of sirup by the time the turnips are done. Be careful to remove as soon as done.

Mashed Turnips.

Cook turnips as directed in the last recipe. Mash until entirely free from lumps, and stir a few minutes before removing from the fire.

Boiled Cabbage.

Select a well-developed head of cabbage, remove the coarser outside leaves, and if there are signs of insects, lay in water to which a little salt

has been added for an hour or two to drive them out. Rinse away the salt water and place the cabbage in just enough water so that when it is done there will be only sufficient to keep it from burning. Do not drain off the water once or twice as many recommend, but preserve the juice. Cover close and boil vigorously until tender, and then let it simmer for awhile. If it is likely to burn before sufficiently cooked, add water. If there is too much water, remove the cover so that evaporation may go on more rapidly. The condensed juice will be very sweet, and should be served with the cabbage. An excellent sauce to be eaten with cabbage may be made from stewed tomatoes by adding rusk, bread crumbs, or thickening with a little graham flour. Some consider it a good plan to inclose the cabbage in a napkin while boiling. This prevents falling in pieces.

Cabbage and Tomatoes.

Boil in a very little water a finely chopped cabbage. When nearly done, add half the quantity of cooked tomatoes. Cook well, but be careful to avoid burning.

Steamed Cauliflower.

Select a large cauliflower and place it in salt water to drive away the bugs which may be hidden in it, and which it is undesirable to cook. Carefully wash to free from the salt, and wrap carefully in a napkin. Place in a steamer and cook until the stalk is soft and yielding to gentle pressure. Twenty or thirty minutes are usually required. Serve with green corn white sauce.

If steaming is not convenient, the cauliflower may be boiled the same as cabbage.

An excellent dish may be prepared by removing the cauliflower from the steamer when it is about half done, picking to pieces, and placing it in a sauce pan with the juice of cranberry or plum sauce. Cover close and stew until tender. Serve cold.

Boiled Green Corn.

No. 1. Remove the husks and silk from green corn, in its prime. Place in a kettle containing a small quantity of boiling water, taking care to lay the large ears at the bottom so as to keep as much out of the water as possible. Cook from ten to twenty minutes according to the age of the corn. Too much cooking hardens it. All it requires is thorough scalding. Cover with a napkin upon removing from the kettle. Corn cooked in this way and eaten without butter and salt is more palatable if eaten from the cob. Steaming requires a little more time than boiling.

No. 2. Shave half of the corn to be cooked, and grate and scrape the remainder. Boil the shaved corn for five minutes in just enough water to cover it. Then add the grated corn and cook ten minutes longer.

Roasted Green Corn.

No. 1. Remove the husk and silk and place before an open grate until the kernels burst open.

No. 2. Bury in hot ashes without removing the husks. Sweet corn prepared in this way is very palatable.

Succotash.

Cook green beans until nearly done; add an

equal quantity of shaved corn and cook fifteen or twenty minutes longer. The juice will be richer if some of the corn is grated. Corn cooked in this way sours very readily.

Green Corn Cream.

Equal parts of grated green corn and water, strained through a sieve or cloth, make a fluid which very much resembles cream, and which may be used for many of the purposes for which cream is usually employed. It makes a very excellent dressing for puddings, vegetables of various sorts, and even for peaches, and similar fruits. Two parts of water to one of corn make a thinner fluid which might be called green corn milk.

Green Corn White Sauce.

Place the milk, prepared as directed in the preceding recipe, in a saucepan, and stir until it boils. Add sufficient graham flour to make it of the desired thickness and boil five minutes longer. This is an excellent dressing for cabbage, cauliflower, potatoes, and other vegetables.

Boiled Beans.

Pick the beans over carefully, wash them perfectly clean, cover them about three inches deep with cold water, and let them soak all night. Early in the morning place them over the fire, leaving upon them all the water that may remain unabsorbed, and adding enough more to cook them in. Let them *simmer* slowly all the forenoon, but do not allow them to *boil*. Some cooks consider the addition of raisins to boiled beans an excellent plan. Try it. Sliced cabbage may be added when the beans are half done.

Baked Beans.

No. 1. Prepare and cook as directed in the preceding recipe; but remove them from the fire as soon as they are soft, and bake for an hour in a very hot oven. They may be mashed fine before baking.

No. 2. After carefully preparing the proper quantity of beans, soak them over night and in the morning parboil until they crack, and then place in the oven and bake in the same water. The addition of a little water may be necessary. Bake all day, adding water when required, but allowing it to become nearly evaporated just before removing the beans from the oven unless much juice is desired.

String Beans.

Select tender bean pods and string, wash, and cut or break them into short pieces. Boil with gentle heat in a small quantity of water until tender. Add a sufficient quantity of green corn cream to make a good soup, and immediately remove from the fire. Cooked tomatoes are considered an addition by some.

Dry Peas.

Cook according to the methods already described for dry beans; less time is required.

Peas Cake.

Boil one part of dry peas in four parts of water until reduced to the condition of a paste. Then rub through a sieve and mold. When cold, cut in slices and eat with some kind of sour sauce. The slices may be browned if preferred.

Green Peas.

Pick and shell green peas, being careful to avoid dirt as the peas are injured by washing. Put into water enough to cover them. Cover close and cook gently fifteen to twenty minutes. Some boil the pods about twenty minutes and then skim them out and boil the peas in the same water. A few young potatoes or beets may be cooked with the peas if desired.

Green Beans.

These may be cooked as directed for green peas. A good seasoning is found in green corn milk or cream if it has been prepared.

Asparagus.

No. 1. Place the young and tender shoots in a napkin, or tie them in bundles, and cook as directed for cauliflower, and serve as greens.

No. 2. Cut the tender portion of the stems into small pieces and cook as peas. Season with green corn milk or cream.

Greens.

This kind of food contains little nourishment, but is well relished by some people. Spinach, cabbage sprouts, and beet tops, make very good greens. They should be thoroughly washed. Cowslips, dandelions, mustard leaves, turnip leaves, and radish leaves, are also used; but they should be first scalded. Boil in just enough water to cover. The addition of young beets or potatoes improves the flavor.

Boiled Onions.

For healthy stomachs, boiled onions are not very objectionable unless the odor is offensive.

To prevent smarting of the eyes in preparation, they may be peeled under water. Boil in a small quantity of water. They may also be roasted.

Cucumbers.

Cucumbers, if eaten when fresh, and without any condiments, are not particularly objectionable as food, although they contain little nutriment. Soaking in water hardens them, and renders them less easily digestible.

Those who are making the change of diet, and have not yet become accustomed to food seasoned with nothing but its own natural flavors, as in the above recipes, may add moderate quantities of salt, milk, or sugar, but never more than just sufficient to make the food palatable.

Soups, Stews, and Gruels.

These articles of food, although much used, and usually considered the most easily digested of all kinds of food, are really quite objectionable when viewed from a physiological standpoint. As a general thing, they are not very nourishing on account of the large proportion of water which they contain. The large amount of water also makes them more difficult of digestion than more solid kinds of food, since it must be absorbed before the process of digestion can be carried on, as previously explained. Crackers should always be eaten with soups and gruels so as to insure thorough insalivation. Gruels are often proper

food for sick people, because they have considerable bulk, with little aliment, it being usually the case that very little nutriment can be appropriated by the system when a person is suffering from acute disease.

No butter, milk, cream, salt, or other condiments, have been recommended in the following recipes. Those who do not find them palatable can add a little milk and salt at first, gradually learning to do without them entirely.

Potato Soup.

Pare and slice potatoes, put them in cold water, and boil until soft. Add a small quantity of soft-boiled rice, barley, or millet. Thicken with a little graham flour first mixed with water and beaten smooth. Crackers or soft biscuit may be added to the soup if desired.

Vegetable Soup.

Five quarts of water; one teacup of rice or pearl barley (soaked over night); one teacup of dried beans or two of fresh; six potatoes sliced; one teacup each of turnip, parsnip, and onions, chopped fine. The barley and dried beans require two hours for cooking; the other vegetables, half an hour.

Bean Soup.

Take half a pint of cooked beans for a quart of soup. Mash them, and boil until they are very soft and well mixed with the water, and then, if preferred, strain to remove the skins. Thicken with a little graham flour, and boil a few minutes longer.

Green Bean Soup.

Take one quart of garden or kidney beans, one ounce of spinach, and one ounce of parsley. Boil the beans; skin, and bruise them in a bowl till quite smooth; put them in a pan with two quarts of vegetable broth; dredge in a little flour; stir it on the fire till it boils, and put in the spinach and parsley (previously boiled and rubbed through a sieve).

Split-Pea Soup.

Take one-eighth as many peas as the quantity of soup required. Boil gently in a small quantity of water until soft enough to be rubbed through a coarse sieve or colander, or until they fall to pieces. Strain, add sufficient water to make the requisite amount of soup, and boil again. Thicken with graham flour and boil again a few minutes. Either split or whole peas may be used if they are strained. The white marrowfat is the best, but the blue pea is also excellent. Some scald the latter and turn off the water before cooking.

Dry beans may be made into a soup in the same manner, but double the quantity is required for the same amount of soup.

Tomato Soup.

Scald and peel good, ripe tomatoes, add a little water, stew them one hour, and strain through a coarse sieve; stir in a little flour, or crumb in toasted biscuit, and then boil five minutes.

Vegetable Oyster Soup.

Slice and boil until tender; thicken with graham flour and pour over toasted bread or crackers.

Parsnip Stew.

Wash, pare, and slice parsnips and an equal quantity of pared potatoes, and cook gently with a small quantity of water, and closely covered. Add a few bits of dough made from graham flour and boiling water. Thicken with boiled pearl barley.

Vegetable Stew.

In a large saucepan with a tightly fitting cover, place a pint of water. Add a half pint of sliced onions, one pint of shred cabbage, and a pint of sliced turnip. Cover closely and stew with moderate heat for forty-five minutes. Then add a quart of potatoes of medium size, and cook until the potatoes are done. Mash and thoroughly mix. If there is too much juice when done, drain it off and boil down to a sufficient quantity to make the whole of proper consistency. This dish with the addition of pork, is a very favorite one with the Irish, but needs no such addition for hygienists.

Onion Stew.

Cook one pint of onions three-fourths of an hour (or more, if large), then put in one quart of potatoes, and, when boiling, cover the surface with scalded wheat-meal dough. Lift when the potatoes are done, and add to the liquid one-half pint of cooked rice, and cook ten minutes. Then pour it over the other ingredients, mix slightly together, and serve hot.

Vegetable Broth.

To equal quantities of turnips and carrots, add an onion. Chop fine, and add a little lentil flour.

Boil until well cooked in water sufficient to make a thin soup.

Graham Gruel.

Mix two tablespoonfuls of wheat meal smoothly with a gill of cold water; stir the mixture into a quart of boiling water; boil about fifteen minutes, taking off whatever scum forms on the top.

Oatmeal Gruel.

Mix a tablespoonful of oatmeal with a little cold water; pour on the mixture a quart of boiling water, stirring it well; let it settle two or three minutes; then pour it into the pan carefully, leaving the coarser part of the meal at the bottom of the vessel; set it on the fire and stir it till it boils; then let it boil about five minutes, and skim.

Corn-Meal Gruel.

Slowly stir into a quart of boiling water two tablespoonfuls of corn meal. Boil gently twenty minutes or half an hour.

Farina Gruel.

Mix two tablespoonfuls of farina in a cup of water, and pour slowly upon the mixture about a quart of boiling water, stirring briskly. Boil ten minutes.

Milk Porridge.

Place over the fire equal parts of milk and water. Just before it boils, add a small quantity of graham flour, oatmeal, or corn meal, previously rubbed with water, and boil a minute longer. This recipe is not recommended as hygienic.

Bill of Fare for Each Month.

The appetite craves variety of food. Especially is this the case with those whose tastes have once been perverted and depraved; and frequent change in the kind of food, or in the manner of its preparation, is a very important auxiliary in effecting a reform in diet. Long-continued sameness begets disgust for articles of food which may have been well relished at first. Perfectly healthy tastes do not manifest this desire for change in nearly so marked a degree, and yet there can be no doubt that there is in nature a demand for variety of food which should be gratified. We desire, however, to impress with distinctness the fact that, contrary to the supposition of many, it is not at all necessary to depart in any degree from the strictest rules of dietetics in order to obtain all the needful variety in articles of diet.

By variety is not meant a great number of dishes at one meal, but a change in the dishes prepared from day to day. Three or four kinds are usually enough for a single meal. Dyspeptic stomachs tolerate better but one or two kinds. Persons whose digestive organs are impaired should avoid the use of fruits and vegetables at the same meal. Fruit should be eaten very freely with meals, but not between meals.

The following bill of fare may be found useful to those housekeepers who are anxious to provide their families with a variety of healthful food, but are often sorely troubled to know "what to get next."

JANUARY.

SUNDAY.—*Breakfast:* Baked potatoes, browned parsnips, snow bread, oatmeal gruel, dried apple sauce, with ripe apples.

Dinner: Rice and apple pudding, canned tomatoes, mashed potatoes, graham rolls, and oatmeal crisps, fresh grapes, steamed figs, apples.

MONDAY.—*Breakfast:* Browned potato cakes, tomato toast, graham pudding with dates, graham and Indian gems, ripe sour apples.

Dinner: Boiled potatoes, baked beans, cranberry sauce, pudding biscuit, parched corn, apple pie.

TUESDAY.—*Breakfast:* Baked potatoes, baked squash, bean soup (made with cold beans), oatmeal breakfast cake, canned fruit.

Dinner: Vegetable stew, baked apples and dates, rice cake, graham crackers, berry sauce.

WEDNESDAY.—*Breakfast:* Baked sweet potatoes, dried sweet corn (stewed), crushed wheat or farina, stewed prunes, Johnny cake, apples.

Dinner: Boiled dry peas, steamed potatoes, sweet-potato bread, canned peaches, boiled samp, custard pie.

THURSDAY.—*Breakfast:* Pea soup, browned potatoes, graham and oatmeal crackers, corn-meal gems, canned peaches.

Dinner: Boiled rice, apple dumpling, hard biscuit, apple brown bread, canned whortleberries, apples.

FRIDAY.—*Breakfast:* Baked potatoes, graham pudding, rice cake, corn-meal crackers, dried apple sauce, dates.

Dinner: Boiled sweet potatoes, stewed turnips, baked squash, small hominy, English currants, apples.

SATURDAY.—*Breakfast:* Browned sweet potatoes and turnips, fruit toast, graham or corn-meal gruel, oat-meal crackers, brown bread, raisins, apples.

Dinner: Rice and apple pudding, small hominy—cold, sliced and browned, graham rolls, fruit gems, cranberry sauce or canned fruit, dates, apples.

FEBRUARY.

For this and the succeeding months we have not made out the complete bill of fare for a week, as for January, but leave the reader to use his discretion in selecting for each day such as he may choose of the articles suggested.

BREAKFAST.—Baked Irish potatoes, baked sweet potatoes, browned potatoes, peas cake, browned turnip; graham pudding, oatmeal pudding, crushed wheat, farina, graham, corn-meal, or oatmeal gruel; tomato toast, fruit toast, dry toast; breakfast cake, rolls, gems, crackers,

crisps; canned fruit, cranberry, dried apples, peach, whortleberry, or cherry sauce, dates, prunes, raisins, apples.

DINNER.—Boiled or steamed Irish and sweet potatoes, mashed potatoes, boiled turnips, baked squash, boiled or baked beans or peas, hominy and beans, hominy, tapioca, rice, corn-meal pudding, bread pudding, rice and apple pudding, sweet potato pudding, steamed bread and fruit pudding; potato soup, split-pea soup, bean soup, dried sweet corn; brown bread, gems, rolls, snow cake, crackers, apple bread, fruit cake, fruit crackers, sweet potato fruit cake, popped corn fruit cake; dried fruit sauce, canned fruit, baked apples, dates, figs, raisins, apples, grapes, nuts.

MARCH.

BREAKFAST.—Baked or browned potatoes, browned parsnips or turnip, baked squash, baked beets, cold boiled beets—sliced, cabbage and tomatoes, beets and tomatoes; gruels; puddings; griddle cakes, rolls, gems, crackers, toast; canned and dried fruit, apples, dates.

DINNER.—Boiled potatoes, turnips, beets, parsnips, cabbage; mashed potatoes, turnips, parsnips; boiled and baked peas and beans, parsnip stew, vegetable stew, small hominy, farina, rice, fig pudding, tapioca apple pudding, bird's nest pudding, apple custard; bean, pea, and potato soup; oatmeal bread, scalded rolls, mixed loaf, graham and corn-meal crackers, cocoanut bread, cocoanut cake, corn-meal fruit gems, dried fruit pies, tarts, raisin pie; dried and canned fruit, dates, figs, apples.

APRIL.

BREAKFAST.—Peach toast, canned cherries, rhubarb and plums.

DINNER.—Vegetable oyster stew, greens, pearl barley, boiled wheat, tapioca pudding, baked rice pudding, corn-starch pudding, American plum pudding; lemon pie, rhubarb and other sour fruits.

Add to the above the bill of fare for March.

MAY.

BREAKFAST.—Same as for April; in some sections, rhubarb and green currants may be added.

DINNER.—About the same as for March and April.

JUNE.

NEW DISHES.—Rhubarb, green currants, young beets, asparagus. Beans and the various preparations from Indian corn should be exchanged for such grains as rice and oatmeal during the warm months.

JULY.

NEW DISHES.—Summer squashes, beets, onions, green pea soup, string bean soup, early potatoes, cucumbers, strawberries, strawberry shortcake, cherries, cherry dumpling, currants, raspberries, bananas, pineapples, whortleberries, whortleberry Johnny cake, oranges, lemons, lemon pie, orange sauce. Use chiefly fruits and grains during the summer months.

AUGUST.

NEW DISHES.—New potatoes, green corn, green corn cream, green corn custard, green beans, succotash, tomatoes, tomato soup, early apples, apples and tomatoes, tomato pudding, water melons, musk melons, blackberries.

SEPTEMBER.

NEW DISHES.—Peaches, green corn custard, pears, plums, baked apples and pears, green apple sauce and stewed pears, stewed peaches, apple and peach pies, green corn gems, roasted green corn.

OCTOBER.

NEW DISHES.—Boiled beets, beets and tomatoes, early cabbage, vegetable stew, grapes, grape sauce, grape and apple sauce, steamed cauliflower, grape tarts, gooseberries, gooseberry pudding.

NOVEMBER.

NEW DISHES.—Steamed pumpkin and squash, pumpkin pie, pumpkin bread, baked squash, chestnuts, chestnut pudding, carrots, boiled turnips, sweet potatoes.

DECEMBER.

NEW DISHES.—Hulled corn, boiled samp, popped corn, custard pie, boiled, steamed, and browned parsnips, cranberry sauce, cranberry dumpling, cranberry pie, custard pie, Christmas pudding, hickory nuts, walnuts, peanuts, and the various foreign nuts.

BEVERAGES.

Summer Drinks.

Many people indulge in the very pernicious habit of drinking iced water during the hot summer months, no matter what may be the condition of the system. This practice often leads to serious results, and should be regarded as decidedly unhealthful. Soda water is another summer beverage of very suspicious character. It is not injurious on account of containing soda, for there is no soda in it, notwithstanding its name. Its effervescence is caused by the escape of carbonic acid which has been mechanically pressed into it. Its injurious properties are due to the sirup employed, which is very rarely pure. Pine-apple sirup seldom contains the slightest trace of pine-apple juice. It is made from coal tar and various other similar commodities. The same is true of the other sirups employed, and the more thoroughly they are let alone, the less damage will be done the health.

Excellent and wholesome drinks may be prepared from lemons, oranges, currants, and almost all the different kinds of berries, by diluting their juices with water and adding a very little sugar when required.

A very pleasant drink can be made from rhubarb. Prepare the stems as for stewing. As soon as the water boils, drain off the juice and dilute it with an equal quantity of cold water. Add a little sugar, and pineapple if desired.

A beverage can be made from apples in a manner similar to the above.

The juices of fruits are harmless and wholesome if used in moderation. They are by some considered superior to water only, it being thought that they quench thirst more readily. At all events, they are infinitely superior to tea, coffee, wine, beer, and the various other mixtures which are generally so largely employed during the hot months.

To Keep Water Cool.

Ice is almost universally depended upon as a means of cooling drinking water in summer. The free use of iced water is harmful for several reasons. 1. It is so intensely cold that it often works serious mischief by too suddenly reducing the temperature of the internal organs; 2. The ice often contains organic impurities—the scum and slime from stagnant water, which render the water to which it is added very unwholesome. If taken at all, it should only be in very small sips.

The better way is to drink none at all; and by making use of the following means, the water may be kept sufficiently cool to answer all the real demands of nature; in fact, it may be kept nearly at freezing temperature:—

Place between two sheets of thick brown paper, a layer of cotton half an inch thick. Fasten the ends of the sheets together so as to form a roll. Sew in a bottom made of similar material, making it nearly air-tight, if possible. Fill a pitcher with cool water, and cover it with the cylindrical box by inverting it over the pitcher. If the box is kept constantly wet with water,

evaporation will go on so rapidly that the water in the pitcher will be kept very cool for a long time.

Water may also be kept cool by placing it in jugs and wrapping them with wet cloths.

Filtered Water.

The best of all drinks is pure soft water. But absolutely pure water is very difficult to obtain. In fact, it never occurs in nature. Filtered rain water is the nearest approximation to it which people generally can obtain, and a good filter is necessary to procure this. People living in districts where hard water only can be obtained from wells and springs cannot afford to live without a filter. In using hard water, they are constantly imposing upon their systems a task which must sooner or later result in serious damage to their health. Unfiltered rain water is not fit to drink, at least after it has been standing a day or two.

How to Make a Filter.

An excellent filter can be obtained at reasonable rates at this Office. See advertisement on last page. Those who think they cannot afford to purchase this valuable article, can construct a very good one at a very small expense, in the following manner :—

Take a large flower pot or earthen vessel, make a hole one-half inch in diameter in the bottom, and insert in it a sponge. Place in the bottom of the vessel a number of clean stones of sizes varying from that of an egg to an apple. Place upon this a layer of much smaller stones and coarse gravel. Then fill the jar within two inches

of the top, with equal parts of pulverized charcoal and sharp sand, well mixed. Place loosely over the top of the jar white flannel cloth, allowing it to form a hollow in the middle of the jar, into which the water can be poured. Secure the edges by tying a stout cord around the outside of the jar. By keeping a suitable vessel under the filter thus made, and supplying rain water when needed, very pure water can be obtained. It can be kept in a cool place in the summer time. It will require to be renewed occasionally by exchanging the old sand and charcoal for fresh. The flannel and sponge must be frequently cleansed.

How to Make a Cistern.

In many localities, soft water can only be obtained by preserving, in some way, that which nature distills from the clouds. Cisterns built in the ground are commonly employed for this purpose; and every family should be provided with this convenience when necessary. But it often happens that, through some defect in construction, a cistern becomes a source of disease rather than a means of health; hence the necessity for proper care in construction. The main thing is to make it perfectly impervious to the entrance of worms or vermin of any kind. It should be covered above, as well as upon the sides, with water-lime cement.

But for drinking and cooking purposes, rain water is wholly unfit, even when it is kept in as good condition as when it falls from the clouds. In its passage through the air, it gathers dust, and becomes colored with smoke and tainted with foul gases. Before it enters the cistern,

also, it washes from the roof a great quantity of impurity—decayed wood, accumulated dust, and the offal of birds. A cistern should be so constructed that, if possible, these impurities may be entirely excluded from it.

This may be readily accomplished by constructing a filter in such connection with the cistern that all the water from the roof must pass through it before entering the cistern. A large, water-tight cask should be selected for the purpose. Sink this into the ground close to the cistern, establishing connection between the latter and the bottom of the cask. Place in the bottom of the cask a few clean, smooth, hard stones of the size of a man's fist, to serve as a support. Place upon these a perforated sheet of zinc made so as to nearly fit the cask. Upon this, place a layer of two or three inches of coarse gravel, thoroughly cleansed; then a thin layer of fine gravel. Upon this, place about a foot of fine, sharp, clean sand, thoroughly mixed with an equal quantity of freshly-burned and pulverized charcoal. Cover this with clean gravel to a depth of two or three inches, and the whole with another sheet of perforated zinc, and the filter is complete. There will be sufficient room left in the upper part of the cask to allow the accumulation of water when it is running in rapidly, as during a rain storm. The cask should be large enough to allow this.

Another method of purifying the water of cisterns, which is in some respects superior to the above, is the following: Build the cistern as already directed, and then divide it into two portions by means of a partition made of porous brick, laid in water-lime. Allow the water to

enter the cistern upon one side of this partition, and withdraw it by means of a pump from the opposite side. It will be found that very complete purification will be effected by its filtration through the brick. Of course, the partition should be so tight that water can pass through only by soaking through the porous brick. Hard-burned or glazed brick must not be employed.

Still another means is to inclose the end of the pipe through which the water is withdrawn from the cistern, in a tight chamber of porous brick. The water will become nearly pure in passing into this chamber through the brick.

Those who have tried the two latter methods described, pronounce them to be very efficient means of purifying water, if properly employed. The first method has one advantage, however, in that the gravel and charcoal can be removed and renewed as frequently as desirable with but little trouble or expense.

Lead Pipes.

WATER intended for drinking purposes should never be allowed to pass through lead pipes, as in so doing it becomes impregnated with the metal, and thus often becomes a source of dangerous, even fatal, poisoning. Paralysis and colic are among the most prominent effects of poisoning by lead. Water pipes should be of galvanized iron, zinc, or block tin.

Preserving Fruits and Vegetables.

Canning and drying are the only ready methods of preserving fruits and vegetables which are at all hygienic. Pickling in salt, alcohol, or vinegar, and saturating with sugar, are eminently unhygienic methods, as they render the article preserved wholly unfit for food. Refrigeration is an excellent method, but it cannot well be practiced on a small scale.

Canning Fruit.

Canning fruit is a very efficient means of preserving it in a wholesome condition, but it is a process which demands careful management to make it a success. Tin cans are sometimes used, but glass cans are now so cheap and are so much better that they should always be preferred. In the end they are cheaper, as they last much longer than tin cans. Tin cans are liable to injure the flavor also. There are several excellent kinds of fruit cans in the market.

In canning fruit two things must be most carefully attended to or failure is certain:—

1. The fruit must be sufficiently cooked.
2. The air must be excluded and the can hermetically sealed.

The best fruit should be selected, and that which is not overripe. It should be kept as clean as possible so that little or no washing will be required, as this is injurious to many fruits. Pick over carefully, and wash quickly if washing is necessary. Either steam or stew, adding as little water as possible, and as little sugar as will suffice to make the sauce palatable. Sweet fruits

require none at all, and none is necessary to the preservation of the fruit. Steaming is rather preferable to stewing or boiling as the fruit is less broken and its natural flavors are better preserved. A porcelain-lined kettle should be used, as all kinds of metal kettles are likely to be corroded by the acids of the fruit.

The fruit need not be cooked so much that it will fall to pieces, but it should be so thoroughly scalded that every part of it will be subjected to a high degree of heat, in order that all of the germs from which fermentation originates may be destroyed. Simply heating is not sufficient.

Some kinds of fruit require longer cooking than others. The length of time varies about as follows: Boil whortleberries and cherries, five minutes; raspberries, blackberries, and ripe currants, six to eight minutes; halved peaches, gooseberries, and grapes, eight to ten minutes; sliced pineapple and quince, and halved pears, fifteen to twenty minutes. Tomatoes, thirty minutes to two hours.

While the fruit is cooking, prepare the cans in which it is to be placed. Thoroughly scald them so that there may be in them nothing which will induce decay. To prevent breaking when the hot fruit is placed in the can, it may be heated by pouring into it hot water and quickly shaking it so that all parts may be heated equally, or the can may be placed in cool water and gradually heated to the requisite degree. Dry heat is equally efficient, and may be applied by keeping the cans in a moderately hot oven while the fruit is cooking. Some place the cold can upon a folded towel wet in cold water, which cools the

bottom and so prevents cracking. This method is very convenient.

When the fruit is properly cooked and the cans are in readiness, first place in the can a quantity of juice, so that as the fruit is put in, no vacant places will be left for air, which is sometimes quite troublesome when this precaution is not taken. Then add the fruit itself. If any bubbles of air chance to be left still, work them out with a fork, spoon handle, or straw. Fill the can full, and immediately put on the cover and screw tightly on. If the can is unpleasantly hot, it may be securely held by passing a towel around it and twisting the ends together. As the fruit cools, the cover can be tightened, and this should be promptly done, so that no air may be allowed to enter. Sometimes the fruit will settle so that a little space will appear at the top. If you are sure the can is tight, do not open to refill, as you will be unable to make the can quite as tight again unless you reheat the fruit, in which case you would be liable to have the same thing occur again.

Some allow the fruit to cool about ten minutes before adjusting the cover. This gives time for the fruit to cool and settle some. The can is then filled with hot sirup and the can tightly sealed.

After filling and tightly sealing, place the cans in a cool place and watch them closely for two or three weeks, when they may be set away if there are no signs of fermentation. Should any such signs appear, open the can immediately, scald the fruit thoroughly, and seal as before, being very careful to examine the cover and see if

there is not some imperfection which prevents the perfect exclusion of air.

Small fruits and tomatoes may be preserved in bottles or jugs by sealing with wax. Thoroughly heat the bottle or jug, and put in the fruit, first putting in juice as when using cans. Shake down well, and refill. Then place two thicknesses of cloth over the mouth, insert a tightly-fitting cork, and thoroughly cover the whole with melted wax made according to the following or some equally good recipe: One pound resin, two ounces bees-wax, and one and one-half ounces of tallow; melt and mix.

When canning in glass vessels, care must be used to protect the vessels from draughts of cold air, or they will be liable to break.

Apples, pears, quinces, and peaches, should be pared and cut into pieces small enough to can conveniently. In canning, they may be arranged in the can with a fork, if desired, the juice being afterward added, but care must be exercised to get out all air bubbles which are very liable to occur when this method is adopted. The skins may be very expeditiously removed from peaches by immersing them in boiling water for a minute or two, and then rubbing with a coarse towel. This is best done when they have just reached maturity, but have not become very mellow. Strawberries require boiling thirty minutes.

Canning Vegetables.

In canning pumpkin or squash, the same general rules should be followed as in canning fruits. They may often be placed in the same cans in which fruit has been kept, after the canned fruit

has been used, as they will keep without canning until January, or even later, with care.

Many people fail in their attempts to can green corn. The principal cause of failure is too slight cooking. Merely scalding is not sufficient for green corn. It must be thoroughly cooked, and then there is no greater difficulty in keeping it than in keeping any kind of fruit. With thorough cooking, glass cans are just as good as tin, although the latter may be used for vegetables, and are preferred by some. Tomatoes are also improved by long cooking. Drying is usually considered a better method of preserving green corn, peas, and similar articles, than canning.

Drying Fruits and Vegetables.

The great secret in drying fruits and vegetables is to dry as quickly as possible without subjecting them to so violent a heat as to burn them or injure their flavor. A little ingenuity will enable a person to devise many convenient and inexpensive methods by which artificial heat can be applied at once to a large quantity of fruit or prepared vegetables, such as peas, beans, or sweet corn. Drying under glass in the sun is a very good method. Juicy fruit, like cherries and small fruit, can be more quickly dried after being scalded. Green corn should be scalded so as to "set the milk," after which it should be cut from the cob. A very excellent way of removing it from the cob is to shave off the tops of the kernels with a sharp knife, and then scrape the ear with the back of the knife; the kernels will thus be pressed out, leaving the hull behind, adhering to the cob.

"The most expeditious mode of drying is by

means of the oven; but the drawbacks are interference with cooking operations, and danger of scorching; a little forgetfulness, or lack of close attention, and the whole is spoiled. Perhaps the best arrangement for drying on a small scale, is by means of a rack, made for the purpose, and placed by or over the kitchen stove. Any one of a little ingenuity can make it, and the shape and size will be governed by the place where it is to be used. A light frame constructed so as to hold a series of trays, from six to twenty in number, is a very convenient arrangement. The trays may be made of strips of wood, a sufficient distance apart to allow the circulation of air between them.

"For the quick drying of small fruits, green corn, etc., a frame may be made to stand directly over the stove, and constructed in the following manner: Nail together a square or oblong frame, and attach to it four legs or supports, long enough when standing on the floor to raise it about a foot from the top of the stove. Across this, stretch mosquito netting, supporting it in the center by cross-bars, running each way. If the frame is large, several supports will be required, or the netting will 'bag,' and the drying will be uneven.

"Fruit dries very quickly upon this, and will need watching to prevent scorching. It may be partially dried upon this, and finished in the sun, if desired, to make room for more.

"Another method of drying, and one which is often practicable among fruit growers and gardeners, is by the employment of the hot-bed, which is generally unused for other purposes in the season of fruit drying. All the change necessary in its structure, is the laying of a floor on

which to spread the fruit. The sash should be raised two or three inches to prevent the fruit from becoming scorched under the rays of the sun."

To preserve dried fruits and vegetables, heat them thoroughly just before putting away, and then hang up in paper bags in a dry place.

Preserving Fresh Grapes.

Pick carefully the later kinds of grapes. Select such bunches as are perfect, rejecting all upon which there are any bruised grapes, or from which a grape has fallen. Spread them upon shelves in a cool place for a week or two. Then pack them in boxes in saw dust which has recently been thoroughly dried in an oven. Bran which has been well dried may also be used. Dry cotton is employed by some. Keep in a cool place. In this way, grapes may be kept until long after New Year's with ease.

Another method still more efficient is to select perfect bunches, as already directed, and dip the broken end of the stem of each bunch in melted sealing wax. The bunches may then be wrapped in tissue paper and placed in layers, or hung in a cool place, or they may be packed in saw dust.

How to Keep Apples and Pears.

Of the numerous varieties of fruits which are grown in this country, apples and pears are about the only ones that can be kept for more than a few days after they are ripe without the employment of artificial means. And, fortunately, these fruits are the very ones which, upon the whole, are in all other respects the best adapted to meet the wants of man. But even these fruits may

be preserved in better condition, and for a much longer time by the employment of certain means, and by attention to a few practical points. The best methods of preserving fruit are always those which change its natural condition as little as possible.

Preserving fruit in ice-houses has been practiced quite extensively, and with very satisfactory results. But many people have not the means to invest in an expensive fruit house. They can derive great advantage from observing the following rules:—

1. If the fruit is of a late variety, allow it to remain upon the trees as long as possible without freezing.

2. Always pick the fruit by hand and handle with the greatest care.

3. Gather the fruit on a dry, cool day, and place it in heaps or bins for two or three weeks.

4. Then carefully pack in barrels, after assorting, head them up, and place them in a cool place.

Upon the approach of freezing weather, the fruit should be removed to the cellar or winter fruit house. The best temperature for keeping fruit well is about 34° F., or 2° above freezing. The cellar in which ordinary vegetables are kept is too warm and damp for apples. Thorough ventilation is also essential, especially in the autumn and early spring.

Before packing away for the winter, fruit should be carefully assorted. That which has nearly reached maturity should be placed where it will be easy of access. The different kinds ripen at different times. They should, on this account, be carefully watched, that they may be used

when in their prime, as they rapidly deteriorate in quality after reaching that period.

Apples of good quality may be canned in the latter part of the season if they ripen faster than they can be used.

Many find it advantageous to keep their apples in thin layers upon broad shelves in a cool place. This plan allows frequent and thorough inspection without disturbance of the fruit. It also permits the removal of affected fruit as soon as it shows symptoms of decay.

Warmth and moisture are the two things which favor decay, and should be especially guarded against.

Keeping Lemons and Oranges.

It is often desirable to preserve these fruits which are of excellent service as flavors for other fruits. During the summer there are always times when they can be bought very cheaply in small lots. Then is the time to buy. Place them at once in a vessel of cool water, which should be kept in the cellar, or ice-house. Change the water every day, and they may be kept perfectly fresh for weeks.

These fruits will dry without decaying if they are kept in a perfectly dry place.

Cranberries can also be preserved in water for a long time if the water is often changed.

To Keep Sweet Potatoes.

Little difficulty is usually experienced in keeping the common Irish potato as long as desirable; but the sweet potato requires much more careful treatment for its preservation. The best plan is the following: Select fine, clean sand. Dry it

thoroughly in the oven, and bury the potatoes in it, packing them so that the sand will surround each one. Keep them in a place which will be very dry and moderately warm, and they will keep a long time. Irish potatoes require a cool place.

The same plan is an excellent one for keeping parsnips, except that the earth used need not be dried, and a cool place is better than a warm one.

HOUSEHOLD HINTS.

By the exercise of a little ingenuity and care, in many of the affairs of domestic life, much may be saved which would otherwise be wasted. Broken lamps and dishes may be mended by the employment of a little cement; a little glue will repair a broken piece of furniture when the breakage first occurs; here a nail or tack, and there a little putty, paint, or varnish, will save many dollars in the course of a year which may be used in the circulation of reform literature. Some of the following hints and recipes may be found useful:—

How to Remove Rust from Clothing.—Oxalic acid will take rust or any other stain out of white goods. Dissolve a small quantity in boiling water and dip the spots in. The acid can be got at any drug store. Another way is to saturate the spots with lemon juice and spread the cloth in the sun; if it do n't take out all the rust the first time, repeat the application. Another method is to wet the cloth with yellow sulphide

of ammonia, by which it will be immediately blackened. After allowing it a minute or two to penetrate, the excess of sulphide is to be washed out and the black spot treated with diluted chlorohydric acid, by which it is at once removed. Finally, wash well with water.

SCOURING SILVER.—Never put a particle of soap about your silver if you would have it retain its original luster. When it wants polish take a piece of soft leather and whiting and rub hard. The proprietor of one of the oldest silver establishments in the city of Philadelphia says that housekeepers ruin their silver by washing it in soap-suds, as it makes it look like pewter.

CEMENT FOR STONEWARE.—To a cold solution of alum add plaster of Paris sufficient to make a rather thick paste. Use at once. It sets rather slowly, but is an excellent cement for mending broken crockery, eventually becoming as hard as stone.

CEMENT FOR IRON.—Take equal parts of sulphur and white lead, with about a sixth of borax, mixing them so as to form a homogeneous mass. When about to apply it, wet it with sulphuric acid and place a thin layer of it between the two pieces of iron, which should then be pressed together. In a week it will be perfectly solid, and no traces of the cement will be apparent. This cement is said to be so strong that it will resist the blows of a sledge hammer.

PASTE.—The adhesiveness of paste may be greatly increased by adding to it a small proportion of powdered alum. The alum also greatly delays its souring.

CEMENT FOR GLASS.—Take an ounce of pure white lead in oil, and ten grains of finely powdered acetate of lead, mixing thoroughly. Apply immediately, and allow the mended article to dry for two weeks before using.

CEMENT FOR WOOD AND METALS.—To common glue add powdered chalk. A little borax, added, will preserve the glue for some time.

CEMENT FOR LABELS.—Take equal parts of gum tragacanth mucilage, and one part flour. This cement is especially good for attaching labels to metals, and resists damp very well.

DURABLE WHITEWASH.—Slack, with abundance of hot water, half a bushel of lime, stirring briskly meanwhile. When completely slacked, add sufficient water to dissolve. To this add two pounds of sulphate of zince (white vitriol) and one pound of common salt. The last-named ingredients cause the wash to harden, and prevent cracking. If a cream color is desired, add yellow ochre. For stone color, add raw umber and lampblack.

KALSOMINING FLUID.—The following is well recommended for walls: White glue, 1 lb.; white zinc, 10 lbs.; Paris white, 5 lbs. Soak the glue over night in 3 qts. of water. Add an equal quantity of water, and heat on a water bath until the glue is dissolved. Put the two powders into another vessel. Pour on hot water while stirring, until of the consistency of thick milk. Mix the two liquids thoroughly, and apply to the wall with a whitewash brush.

HINTS FOR HOUSE CLEANING.—Remember the closets and garret as well as the sitting room and parlor.

Mix with the whitewash a considerable proportion of pulverized copperas. It will disinfect the moldy walls, and destroy the eggs of various kinds of vermin.

Never put new paper upon the walls without removing the old. Much harm has often resulted from a neglect of this precaution.

Be careful to avoid arsenical colors in selecting wall paper. Green is the most likely to be dangerous.

A little whiting and a few old newspapers are almost indispensable for polishing the windows and mirrors.

A hot iron applied to old putty will soften it almost instantly.

Matting can be cleaned easily by thorough sweeping after sprinkling salt or moist corn meal or sawdust upon it.

To cleanse the drain pipe, pour down a strong solution of copperas.

Disinfect the cellar by ventilation, whitewashing, and scattering chloride of lime or copperas about.

The cistern should also be noticed. Draw out the water and cleanse it thoroughly, if possible, twice a year. If there is only a slight taint to the water, it may be removed by letting down into the cistern a coarse sack containing one or two bushels of powdered charcoal.

Rats and mice may be driven away by placing in their holes or runways caustic potash or unslacked lime (powdered).

A solution of corrosive sublimate will kill bed bugs and cockroaches instanter.

Paint can be removed by applying a strong solution of oxalic acid.

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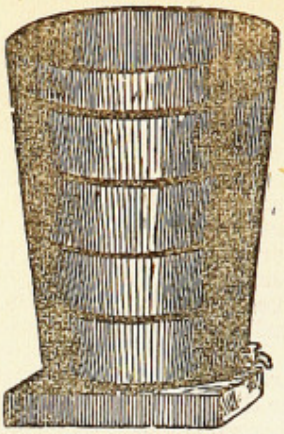
IMPROVED WATER FILTER.



THE accompanying cut is a representation of one of the greatest and most useful inventions of the age—*Kedzie's Improved Water Filter.*

Its mechanism is so perfect that it accomplishes all that could be expected or desired of a filter to accomplish, and without the bestowal of more than the slightest amount of attention. It removes from water all those products of decay and disease which are the most prolific causes of sickness and death.

THOUSANDS USE THEM

And admire them, and all are ready to testify to their efficiency and utility. No family should be without one; for it is impossible to obtain from springs or wells water which is, in all respects, so free from injurious properties as is soft filtered water.

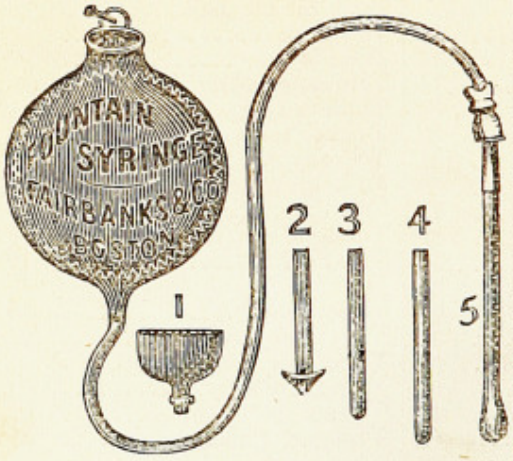
Five sizes are manufactured to suit the wants of all. The following table gives their dimensions:—

No. 1,.....	25	inches	high,	reservoir	holds	2 gallons.
" 2,.....	27	"	"	"	2½	"
" 3,.....	29	"	"	"	3	"
" 4,.....	31	"	"	"	3½	"
" 5,.....	32	"	"	"	4	"

Prices. No. 1, $9.00; No. 2, $10 50; No. 3, $12.00; No. 4, $13.50; No. 5, $15.00. Orders promptly filled.

Address, ***Health Reformer, Battle Creek, Mich.***

FOUNTAIN SYRINGE.



THESE syringes have become so popular through the general recognition of their excellencies, that they have almost entirely superseded all other styles for most purposes. The principal advantages which they offer over others are the following: 1. They are self-acting, no pumping being required; 2. They are valveless, and so simple in construction that they cannot get out of order; 3. They do not inject air, and thus do not endanger the patient; 4. By means of the sprinkler attachment, light shower baths can be administered. 5. Various other attachments adapt them to use for every part of the body. 6. The evenness of action with which they operate makes them superior to every other syringe.

No family should be without one of these syringes. They are used exclusively at the Health Institute.

Prices. No. 1, $2.50; No. 2, $3.00; No. 3, $3.50.

Address, ***Health Reformer, Battle Creek, Mich.***

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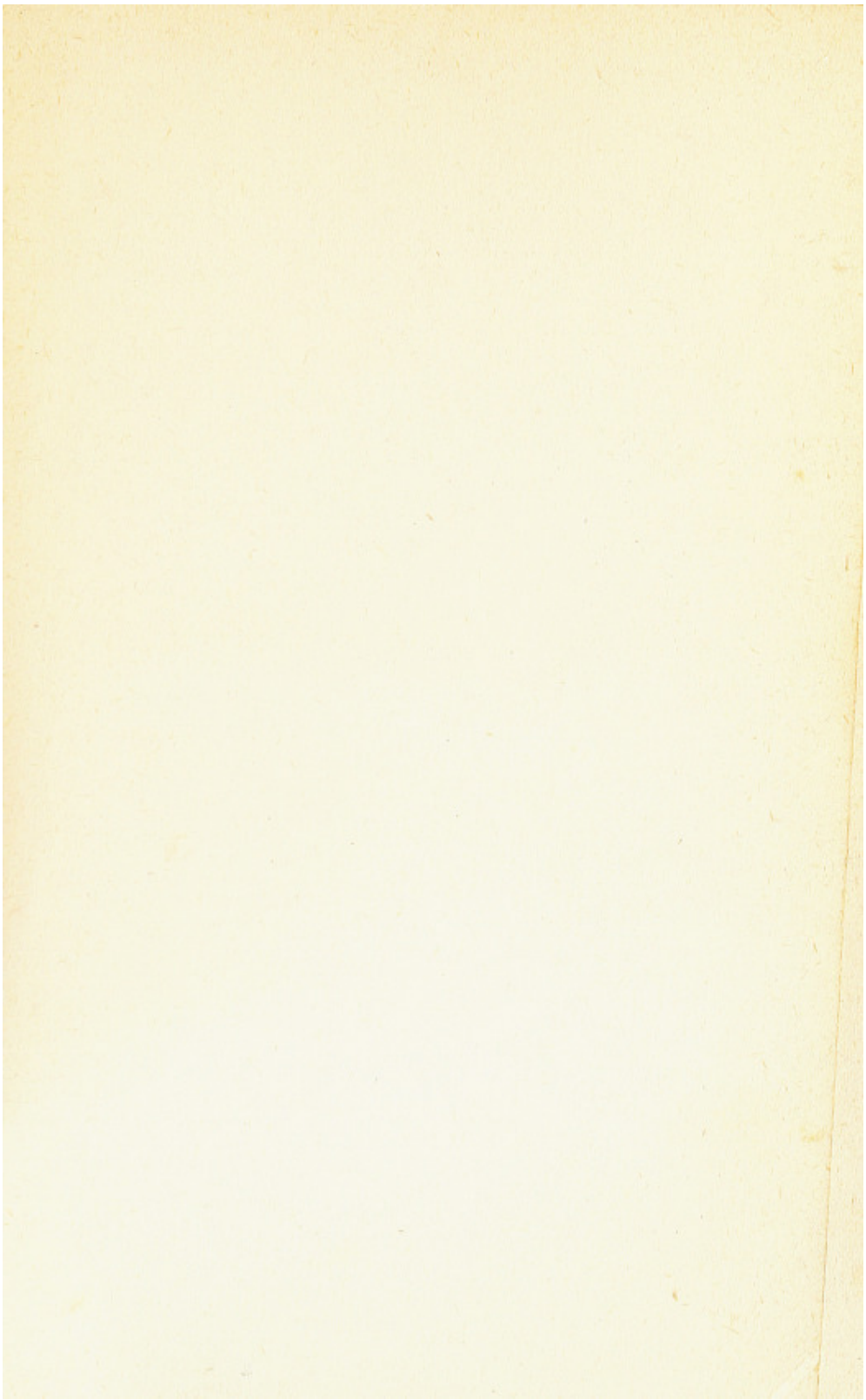

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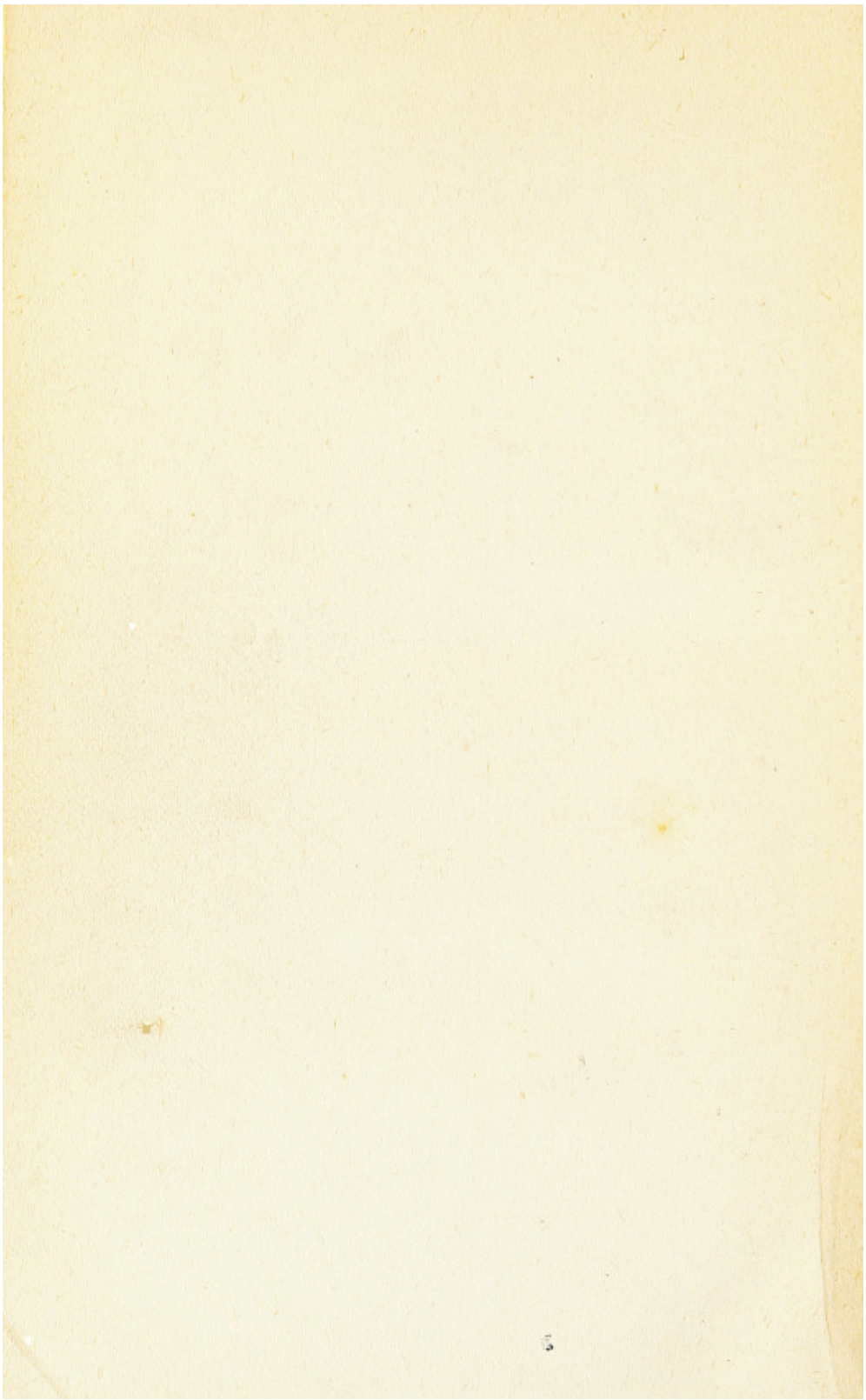

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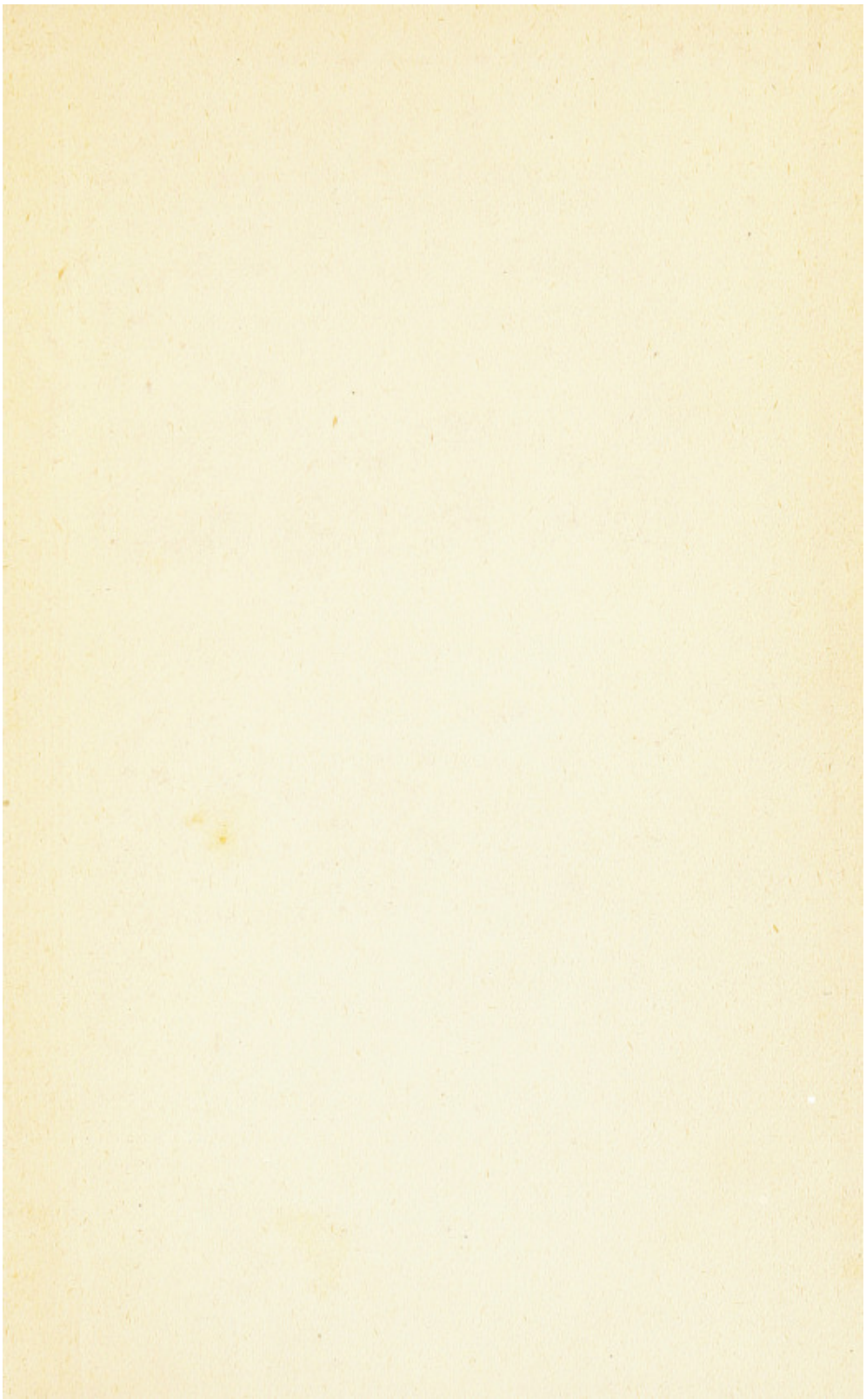

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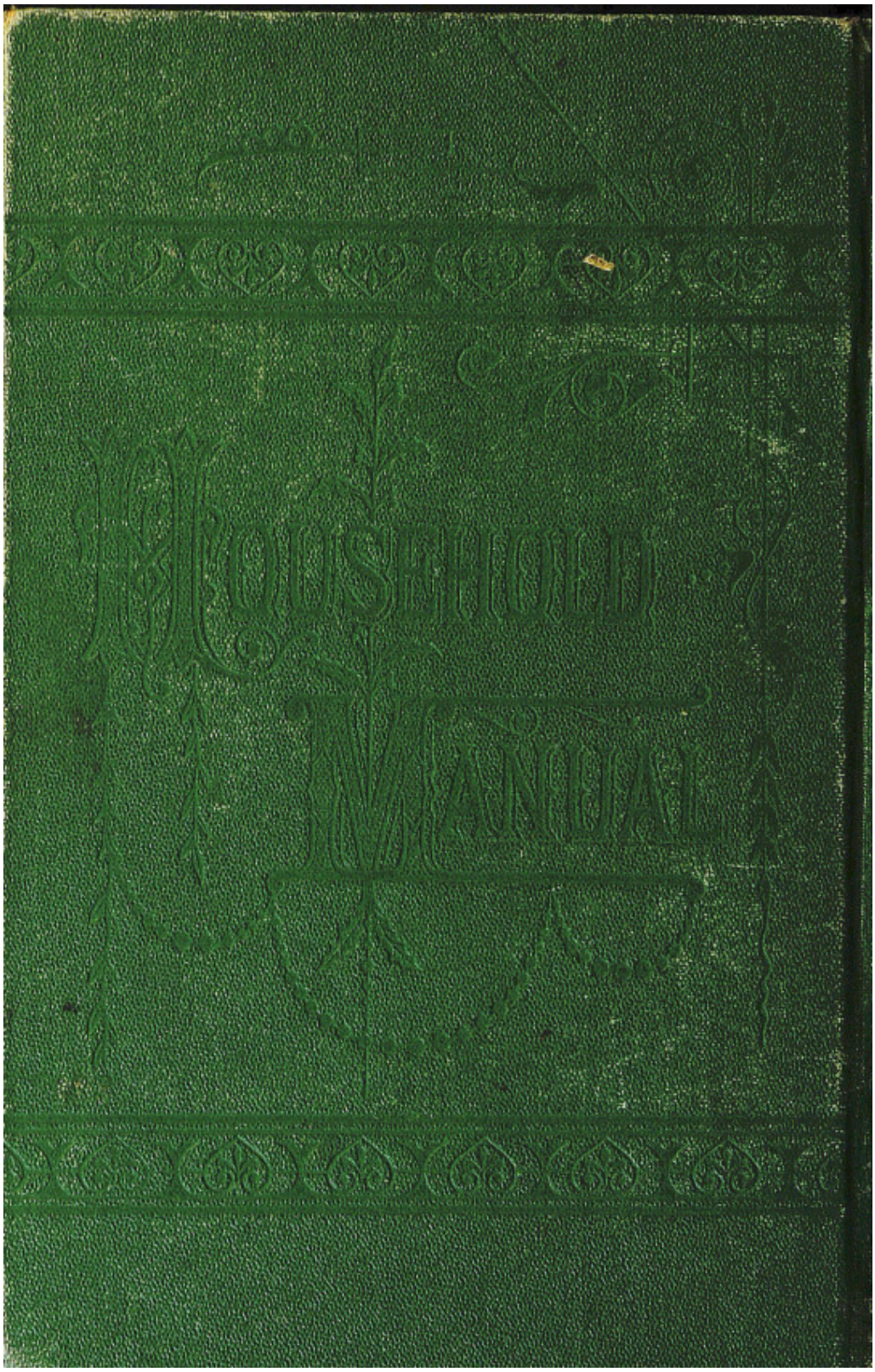

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